Handle With Care: Historical Geographies and Difficult Cultural Legacies of Egg-Collecting

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Submitted for the requirements for the Degree of Doctor of Philosophy (PhD)

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Abstract

This thesis offers an examination of egg-collecting, which was a very popular pastime in Britain from the Victorian era well into the twentieth century. Collectors, both young and old, would often spend whole days and sometimes longer trips in a wide variety of different habitats, from sea shores to moorlands, wetlands to craggy mountainsides, searching for birds' nests and the bounty to be found within them. Once collectors had found and taken eggs, they emptied out the contents; hence, they were really egg*shell* collectors. Some egg collectors claimed that egg-collecting was not just a hobby but a science, going by the name of oology, and seeking to establish oology as a recognised sub-discipline of ornithology, these collectors or oologists established formal institutions such as associations and societies, attended meetings where they exhibited unusual finds, and also contributed to specialist publications dedicated to oology. Egg-collecting was therefore many things at once: a culture of the British countryside, from where many eggs were taken; a culture of natural history, taking on the trappings of a science; and a culture of enthusiasm, providing a consuming passion for many collectors. By the early twentieth century, however, opposing voices were increasingly being raised, by conservation groups and other observers, about the impact that egg-collecting was having on bird populations and on the welfare of individual birds. By mid-century the tide had turned against the collectors, and egg-collecting in Britain was largely outlawed in 1954, with further restrictions imposed in 1981.

While many egg collections have been lost or destroyed, some have been donated to museums, including Glasgow Museums (GM), which holds in its collections over 30,000 eggs. As a Collaborative Doctoral Award involving the University of Glasgow and GM, the project outlined in this thesis aims to bring to light and to life these egg collections, the activities of the collectors who originally built them, and the wider world of British egg-collecting. By researching archival material held by Glasgow Museums, published specialist egg-collecting journals and other published sources, as well as the eggs as a material archive, this thesis seeks to recover some of the practices and preoccupations of egg collectors. It also recounts the practical activities carried out during the course of the project at GM, particularly those involving a collection of eggs newly donated to the museum during the course of this project, culminating in a new temporary display of birds'eggs at Glasgow Museums Resource Centre.

Table of Contents

List of Tables and Text Boxes

List of Figures

Acknowledgements

Firstly, I thank the Arts and Humanities Research Council for funding this project via award number AH/I023694/1.

I'd like to say a big thank you to my supervisors at the University of Glasgow, Hayden Lorimer and Chris Philo, for their support, guidance and always thorough and helpful comments on my work. My supervisors at Glasgow Museums, Richard Sutcliffe and Helen Watkins, have also been hugely helpful throughout this project in lots of ways, including helping me navigate the sometimes confusing complexities of their institution, as well as preventing me getting lost in the corridors of Glasgow Museums Resource Centre. Thanks also to the many Glasgow Museums staff for sharing their time and knowledge, including those names in this thesis but also extending to many more.

Thanks also to:

… Admin staff at both the University of Glasgow and Glasgow Museums, as well as staff and volunteers at the University Library, Glasgow City Libraries, the National Library of Scotland and the Scottish Ornithologists' Club.

… Bob MacGowan (National Museums Scotland) for occasional meetings, and for sharing his formidable knowledge of the history of egg-collecting. Maggie Reilly (Hunterian Museum), Douglas Russell and Zoe Varley (Natural History Museum) also gave their time and insights too.

… Sjurdur Hammer, Nina O'Hanlon and Adam Hotson for sharing their egg-related research findings.

A special thanks to David Clugston, as Honorary Librarian at the SOC but especially for generously allowing me access to his own immense library of historical oological material, much of which I would simply not have been able realistically to obtain otherwise. Thanks also to R.J.Connor for very helpful contextual information provided during correspondence and a brief phone call. Also to PC Aros Mathieson and all others who have provided information or assistance during the course of this thesis

Thank you too to the staff and students of the School of Geographical and Earth Sciences at Glasgow, too many to name in person, for all manner of things including insights gleaned from colleagues involved in historical and cultural geography, and innumerable lunchtime and after-hours conversations with people across the department. Thanks especially to Rachel, who has been in a very similar boat throughout this PhD, and other contemporaries Vicky, Phil and Hazel. Thanks too to my office mates including Haval, James, Paul, Chris, Maurits and Thomas.

Thank you to Eric Laurier and Fraser MacDonald of Edinburgh University for alerting me to the existence of this PhD project, at a highly opportune time, and to Charles Withers and Emily Brady for having opened my eyes to the joys of historical geography and environmental philosophy during my Master's. Thanks also to the rest of the Edinbrugh crew.

Thanks to Mary and Nick Barber for kindly allowing me to stay at Stean Cottage when I was starting the final push, which was the perfect place for it.

Thanks to my parents for their love, support and proof-reading, and for finding all manner of second-hand oology-related books, cigarette cards (for which thanks also to Matt) and other items.

Lastly and most importantly of all, I'd like to thank Mel for her proof-reading and baking skills, but especially for her love, good humour and patience.

This thesis is dedicated to the memory of Chris Harman and Dan Maric, both good eggs.

Author's Declaration

I hereby declare that, except where explicit reference is made to the contributions of others, this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

Signature: ……..

Printed name: ……..Edward Cole

Abbreviations and Conventions

Abbreviations

BOA	British Oological Association
BOC	British Ornithologists' Club
BOU	British Ornithologists' Union
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
Defra	Department for Environment, Food and Rural Affairs
GCC	Glasgow City Council
GM	Glasgow Museums
GMRC	Glasgow Museums Resource Centre
GOMA	Gallery of Modern Art
JS	Jourdain Society
NatSCA	Natural Sciences Collections Association
OR	*The Oologists' Record*
OCC	*The Quarterly Circular of the Oologists' Correspondence Club*
OE&M	*The Oologists' Exchange and Mart*
NLS	National Library of Scotland
RSPB	Royal Society for the Protection of Birds
SSPWB	Scottish Society for the Protection of Wild Birds

Conventions

Single quotation marks are used except within a quotation, or where the original uses double quotation marks (e.g. "M.B.O.U." as a pseudonym).

Quotations are cited with the original formatting except for minor amendments (e.g. to remove orphaned punctuation marks). Italics in quotations are as in the original unless stated otherwise.

Bird species names are in lower case unless containing a proper noun, in the first part of Latin names, or in quotes where they were often capitalised.

The verb ‘egg-collecting’ is hyphenated but the nouns ‘egg collector’ and ‘egg collection’ are unhyphenated.

Numbers greater than twelve in the text are written in figures.

Chapter 1. Introduction

> Went usual rounds, on way round I thought I saw a Nuthatch. I noticed that one of the Woodpecker's holes I had cut into was all plastered with mud and earth. I struck the bottom of the tree and out flew Mrs Nuthatch! I le[a]pt with joy, and lost no time in forcing my way into the nest. … I was rewarded well with 6 beautiful eggs. The best I have ever seen. (Peter Hay, 28 June 1949)
>
> 'What the leisure of my life would have been like without days afield after eggs … I do not like to imagine' ('[A] famous ornithologist' 1961: 30)

Birds' eggs have a hold on the human imagination, with their perfect form and wide variety of sizes, textures and in particular their beautiful surface colours and patterns. Egg-collecting, also known as birdsnesting or simply nesting, was a hugely popular pastime in Britain from the Victorian era well into the twentieth century. Devotees, overwhelmingly male and often well-heeled, ranged from schoolboys to elderly gentlemen.[1] Collectors would often spend whole days and sometimes longer trips in a wide variety of different habitats, from sea shores to moorlands, wetlands to craggy mountainsides, searching for birds' nests and the bounty to be found within them. Many collectors stayed close to home, whereas others travelled round Britain, and sometimes to its surrounding islands or even further afield to Europe or beyond. They would usually take the complete clutch of eggs – all the eggs laid by a bird in a single nesting attempt – found in each nest, rather than single eggs.

Once collectors had found and taken eggs, they emptied out the contents; hence, they were really egg*shell* collectors. Most of the biological material of the egg was for them a waste product, to be removed as quickly as possible by 'blowing' eggs. The resulting empty eggshells could then be added to their collections, for which some collectors had specially made wooden cabinets, with eggs kept in meticulous order along with data about each clutch. Others, especially schoolboy collectors, might simply hoard a shoebox full of eggs kept in no particular order. Not all collectors had the inclination or ability to find and take eggs from their original nesting sites; some collectors instead traded or exchanged eggs, either between themselves or through various commercial institutions such as professional egg-dealers and auction houses.

Some egg collectors claimed that egg-collecting was not just a hobby but a science, going

[1] Because of the gender imbalance, egg collectors will be referred to throughout this thesis by male pronouns with little further comment.

by the name of oology, and they called themselves oologists.[2] Seeking to establish oology as a recognised sub-discipline of ornithology (itself a sub-discipline of natural history), these collectors established formal institutions such as associations and societies, attended meetings where they exhibited unusual finds, and also contributed to specialist publications dedicated to oology. Through these different spaces, oologists could share scientific knowledge about eggs, and also their enthusiasm, whether in person or widely separated geographically. These institutions and spaces were almost entirely amateur in their constitution and membership.

Egg-collecting was therefore many things at once: a culture of the British countryside, from where many eggs were taken; a culture of natural history, taking on the trappings of a science; and a culture of enthusiasm, providing a consuming passion for many collectors. Despite, and in some ways because of, its popularity, by the early twentieth century opposing voices were increasingly being raised, by conservation groups and other observers, about the impact that egg-collecting was having on bird populations and on the welfare of individual birds. These voices gained in strength, and there were protracted debates about the rights and wrongs of egg-collecting in ornithological circles, which also spread to the national press. By mid-century the tide had turned against the collectors, and egg-collecting in Britain was largely outlawed by the Protection of Birds Act 1954, which also ended the trade in birds' eggs (see Appendix 1). Subsequently the popularity of egg-collecting waned, although exceptions and loopholes in the law ensured that some collecting continued. The Wildlife and Countryside Act 1981 largely put an end to these loopholes, and since then egg-collecting has dwindled to being the preserve of a few furtive individuals. Today the egg collector is one of the folk-devils of modern life, typically personified as a socially-maladjusted male contributing to the potential extinction of rare bird species through his unhealthy, even perverted interest in amassing these beautiful symbols of female fertility.

Over the years, many egg collections have been lost to the ravages of time. As fragile objects (although more resilient than often assumed), eggs were easily damaged if moved around, and some collectors may simply have thrown collections out if they gave up or moved house. Legal strictures on egg-collecting provided a further catalyst for the loss of collections, as some collectors may have feared being in trouble with the authorities even if

[2] 'Oology' and 'egg-collecting' will be used almost interchangeably in this thesis. 'Oology' is sometimes written with an umlaut over the second 'o', to indicate that it is pronounced 'oo-ology'; this convention is not followed in this thesis.

their eggs were, in fact, held within the law. Not all have been destroyed, and many individual collections have been acquired by museums around the UK, with an unknown number remaining in private hands. Birds' eggs have been donated to or bought by museums since at least the Victorian period. Glasgow Museums (GM) is one such institution, holding over 30,000 birds' eggs.[3] These holdings might be aptly called a collection of collections, each acquired (by donation or occasionally purchase) since the late nineteenth century. Of these thousands of eggs, however, only a few dozen are on public display, and even then usually as part of a display about another topic, rather than being the centre of attention. Arguably, at least part of the reason for the lack of eggs on display is the present-day pariah status of egg-collecting, which lends the collections an air of awkwardness or difficulty.

As a Collaborative Doctoral Award involving the University of Glasgow and GM, this project has a number of aims which seek to satisfy the requirements of both partner institutions.[4] Firstly, I have sought to carry out historical, archival research into the GM collections. The eggs themselves comprise a material archive, but there is also a written archive in the form of collecting diaries, notebooks and data cards included along with some of the individual collections donated to GM. By studying these sources, I have tried to recover some of the activities and attitudes of the original collectors whose eggs are now held at GM. I have also attempted to understand the wider historical context by researching the practices, preoccupations and predilections of British egg-collecting culture more generally, principally through research based on rare published sources such as specialist journals. As well as carrying out archival work, I have endeavoured to re-enact some of the practices of egg collectors, while adhering to practical, legal and ethical constraints which mean that actually going out and collecting eggs is neither realistic nor desirable. It has, however, been possible to visit some of the places travelled by egg-collectors in the past, and to try my hand at blowing some (hens') eggs. My aim has not been to rehabilitate the image of the present-day collector, but neither to demonise the collectors of earlier periods. Instead, I have sought to understand the historical culture of egg-collecting in Britain, particularly in the early to mid-twentieth century when its transition from popular pastime to wildlife crime largely took place.

Another key strand of this project has been working with GM, to gain practical experience

[3] Henceforth, 'GM' will be taken to refer to the (singular) institution and not the (plural) museums it administers.

[4] This project has been funded by the Arts and Humanities Research Council (grant AH/1023694/1).

of working with museum egg collections, and thereby to understand the challenges that they present to curators and other museum staff. In doing so, I have tried to gain insights into the organisational culture of GM. During the course of this doctoral research project, the donation of a significant egg collection, confiscated by police from a collector called Keith Liddell, provided an excellent opportunity to experience the processes that new acquisitions to the museum must undergo. It also provided the basis for a display of birds' eggs which has formed a natural conclusion to project activities.

As a historical geographer, I have sought to investigate the history of egg-collecting through the spaces and places where it has been practised. As such, the research findings are presented according to the different spaces through which eggs are transported on the journey from their original habitats to the storage or display cabinets of the museum. Firstly, I discuss collectors' activities in the wide variety of locations from which eggs were originally found and taken, represented by the generic site of 'the field'. In the next chapter, I consider the transformations that took place once eggs were brought back to a collector's home to be emptied, prepared for storage, and paired up with accompanying data, thereby being inducted into a collection. In the following chapter, I focus on the formal and institutional spaces in which collectors could convene and birds' eggs would circulate, either physically or metaphorically, including associations, meetings and publications. Finally, I turn to consider the space of the museum, the final resting place of many collections, at least for the foreseeable future.

The subtitle chosen for this PhD research project is 'historical geographies and difficult cultural legacies of egg-collecting'. As such, considerations of difficulty have taken centre-stage in the project, and I have sought out the various aspects of egg-collecting and egg collections that make them difficult. Firstly, there are practical difficulties involved in taking eggs from the wild, preparing them for entry into a collection, and ensuring their continued preservation. The particularities and peculiarities of birds' eggs as material entities, possessing an unusual combination of fragility and durability, will resurface throughout this thesis. There are also epistemological difficulties such as the best approach for classifying different bird species, only touched upon lightly in this thesis, and the levels of credibility afforded to different types of collecting experience. Most crucially, however, egg-collecting has been an ethically controversial activity for over a century, the rights and wrongs of which have been subject to numerous debates. These debates have arguably been particularly fraught because of the ambiguous 'almost-animal' ontological status of

birds' eggs, on the threshold of the animal and non-animal, which has meant that the focus of ethical concern has tended to shift between eggs themselves and the animals that they might become, the parent birds or whole bird populations, and even the moral well-being of egg collectors as individuals. The disquiet surrounding egg-collecting has in turn affected the treatment of egg collections by museums, many of which have been, arguably, reluctant to exhibit or even to publicise their holdings for fear of breaching ethical norms and standards. This reluctance may be partly driven by the fear that displaying birds' eggs' is implicitly to condone and even to encourage the act of taking them, an act which is not only ethically charged but also illegal in Britain today. I have sought out and even embraced these different types of difficulty when undertaking my research, as a means to enrich enquiry.

In summary, this project combines scholarly research into a previously popular British leisure activity with practical experience of working with a museum egg collection. It thereby aims to bring the GM egg collections, and the wider historical world of egg-collecting, to light and to life. The remainder of this Introduction outlines how the project findings are to be presented in the following chapters of this thesis.

Map of thesis

Chapter 2. Egg as 'Almost-Animal', Collectable, Specimen and Museum Object: Thematic Review

Chapter 2 sets out the theoretical framework and literature that informs this thesis. Initially, I consider the birds' egg as a biological entity which, by being collected, is brought into the sphere of human culture, raising questions about the appropriate treatment of the of the 'almost-animal' by humans, and relevant studies from the field of animal geographies, and animal studies more widely, will be discussed. The symbolic and aesthetic allure of eggs are considered briefly, before focusing in some detail on collecting as a cultural phenomenon. Next, I discuss scholarly work relevant to the scientific aspects of egg-collecting, initially considering studies which have delineated temporal, historical developments in science and natural history. Attention then turns to studies which have emphasised spatial and geographical aspects of scientific knowledge and practice, providing a justification for the structure of the empirical chapters of this thesis. A

progressive narrowing of focus then occurs, firstly to ornithology, taken as a sub-discipline of natural history, and then to oology as a further sub-discipline of ornithology. Having assessed the relevant literature on these specialisms, outline reference is made to each of the spaces forming the empirical structure of this thesis: the field, the laboratory (as represented by the collector's home), collective institutions such as associations and journals, and finally the museum.

Chapter 3. Archive, Collaboration and Practice: Methods and Sources

Chapter 3 is structured as follows. Initially, I discuss some recent methodological concerns in historical geography, including expanded notions of 'the archive' and questions of participation. Next, I outline the collaborative nature of this PhD, with Glasgow Museums (GM) as a partner institution, and give an overview of GM before introducing its egg collections in some detail. I also summarise the written archive relating directly to the GM egg collections and specify my research approach to these sources, before justifying my use of additional sources such as specialist journals, in particular *The Oologists' Record*. I then summarise my practical attempts at recovering past oological practices such as egg-blowing. I also outline activities undertaken at GM in addition to historical research, including the staff consulted and my contact with other museums, organisations and individuals. Finally, I summarise the limits to my research and some of the paths not taken.

Chapter 4. The Field

The first major site in the quest to follow the eggs from their origin to the museum is 'the field', and In Chapter 4 I follow collectors in the process of finding nests and taking eggs. GM has three sets of collecting notes from out in the field, in the form of notebooks and diaries. Although limited in extent, they provide an insight into the fieldwork habits and techniques of these collectors, and their preferences and predilections. The notes by Peter Hay, revealing youthful exuberance, will be discussed first, followed by a quieter, more reserved voice recorded in the diary donated with the Robertson collection. The Arbuthnott family field notes, with both adult and child authors, are then considered. Having investigated the field activities of some of the GM collectors, attention turns to the process of collecting in the field more generally, and its constituent activities such as: finding and reaching nests; taking and transporting eggs; the relative merits of solo and accompanied collecting; and the illicit thrills arising from trespassing on private land, or outwitting

authority figures. The importance attached by oologists to these experiences of field collecting is also discussed.

Chapter 5. The Individual Collector and the Collection at Home

Having followed the excursions of egg-collectors into and from the field, the next major space to be considered is that of the egg collection itself, built up by individual collectors. In Chapter 5 I investigate how collectors prepared collected eggs for inclusion in their collections, how they stored them and the kinds of information that they kept about their eggs, setting these findings in the context of work in science studies on the transformations that take place in order to make objects such as birds' eggs amenable to scientific study. In the remainder of the chapter I consider what kind(s) of people egg collectors were, in terms of socioeconomic profile (gender, age, class and profession), the non-professional, 'hobbyist' nature of most egg-collecting, possible motivations for collecting, and what kind of character traits were seemingly possessed by collectors. The characteristics associated with an 'ideal' egg collector, or 'true oologist', will be considered, alongside those of real-life collectors.

Chapter 6. Collecting as Collective: The Formal Social World of British Egg-Collecting

Chapter 6 investigates the formal, collective spaces or institutions of egg-collecting, encompassing associations, meetings and publications. These spaces provided opportunities for amateur enthusiasts, sometimes geographically dispersed, to come together to delineate, celebrate and defend oology. The main collective spaces are considered in turn, including the British Oological Association, formal meetings under its aegis and in earlier forms, and a number of oological periodical publications. Particular scrutiny will be given to *The Oologists Record*, because of its longevity (nearly fifty years) and the richness of its contents. Having introduced these spaces, a more chronologically-ordered account is given of oology during the early to mid-twentieth century. Ethical debates about egg-collecting between its protagonists and 'protectionist' opponents, which continued throughout the 1920s and 1930s, are rehearsed in some detail, based on a number of published sources. The trajectory and decline of the collective spaces of oology after the Second World War is then followed, and the last major section recounts the late, brief flowering of *Bird Land* and the Northern Oological Society, acting as youth-focused, northern and less privileged counterparts to the other institutions of oology.

Chapter 7. The Museum

Chapter 7 focuses on the treatment of egg collections by museums in general, and by GM in particular. Having to this point followed birds' eggs, and egg collectors, from the field into the individual collection and the various social spaces of egg-collecting, the museum is the final spatial category to be considered in this thesis. To begin, the notion of difficulty as it relates to museums is introduced, calling on specific examples from the experiences of GM as an institution. Discussion then focuses on the process by which egg collections move from private hands into the museum stores, involving stages such as the decision to donate, receipt by the museum, accessioning, cataloguing, storage and conservation. The donation of the Liddell collection during this PhD is considered as an exemplary case. The value and uses of museum egg collections – for scientific and cultural research, and as sources for artistic inspiration – are evaluated, while the curatorial and design practices encompassed in museum display are considered in some detail. Much of the material in this chapter is based on my own experiences of contributing to the work of GM, in particular my involvement in taking receipt of the Liddell collection, and then in playing a central role in curating a new egg display at GMRC.

Chapter 8. Conclusion

Chapter 8 opens by discussing some of the many informal collections within the egg-collecting fraternity revealed by the Liddell collection data cards, before going on to offer some general reflections on the PhD project. I summarise its contributions to scholarship in the fields of animal geographies, historical geographies of the British countryside and historical geographies of science. Discussion then follows about the collaborative nature of the project, its practical aspects and outcomes, and the benefits to Glasgow Museums. Finally, I offer some reflections on the importance of handling egg collections with care, not just in terms of their physical fragility, but also when studying and communicating their complex histories and geographies.

Chapter 2. The Egg as 'Almost-Animal', Collectable, Specimen and Museum Object: Thematic Review

Introduction

This chapter sets out the theoretical framework that informs this thesis, with a structure as outlined in Chapter 1. The discussion includes considerations pertaining to eggs as biological, 'almost-animal' entities; as objects with symbolic and aesthetic allure; as collectable objects; as scientific specimens taken from the wild, brought into the collector's home, and circulated in various collective spaces; and as objects held, and sometimes displayed, by museums. Various types and aspects of difficulty, as introduced in Chapter 1, will be considered as they arise in this chapter. However, specific treatment of ethical difficulty with regard to museum collections such as human remains, controversial artworks and, of course, birds' eggs will be deferred until Chapter 7. The reason for this deferral is that these issues are closely, even inextricably, tied to examples from GM, so they are most appropriately dealt with at a stage in the thesis when GM takes centre-stage, rather than in this chapter with its aim to introduce relevant themes at a more synoptic level. Discussion of methodological literature has also been deferred, in this case to Chapter 3.

Egg as 'almost-animal'

> *Ex ovo omnia* … Everything comes out of an egg. (Ovid, quoted in Eugenides 2011: 198)

Animal life begins with an egg. Some animals are viviparous, bearing live young, and others, including all bird species, are oviparous, laying eggs which later hatch (Walters 1994a). The biological literature on wild birds' eggs is much smaller than that on hens' eggs, but there are a few overviews, including Romanoff and Romanoff (1949) and a recent popular account by Birkhead (2016), who notes that:

> … eggs are perfect in so many different ways. They have to be, for birds lay and incubate in such an incredible diversity of habitats and situations, from the poles to the tropics; in wet, dry, clean and microbe-infested conditions; in nests and without nests; warmed by body heat and without body heat. The shape, colour and size of

> eggs as well as the composition of their yolk and albumen all constitute the most extraordinary set of adaptations. (*ibid.*:xvi)

Birds' eggs begin with a yolk, a cell rich in fat and protein, upon which sits the germinal disc containing female genetic material. Once released from the ovary into the oviduct, the yolk is ready to be fertilised by sperm, embarking on a twenty-four hour journey down the oviduct. Here the yolk (now containing an embryo) becomes surrounded by an albumen which will provide water and further protein to the developing chick and protect it against microbial infection. Filaments called chalazae help to keep the yolk correctly sited and oriented within the albumen, which is itself encased in a double-layered collagen membrane. This membrane is sprayed with a calcium carbonate solution as it passes through the uterus, which continues for around twenty hours, and the solution hardens into an eggshell containing thousands of tiny pores to allow the embryo to breathe. Next, coloured pigments are sprayed onto the shell surface, along with a protective cuticle layer, before the egg is finally laid. The eggshell protects the chick and provides it with calcium for its growing bones during incubation periods which vary from around ten to eighty days, depending on species (Birkhead 2016).

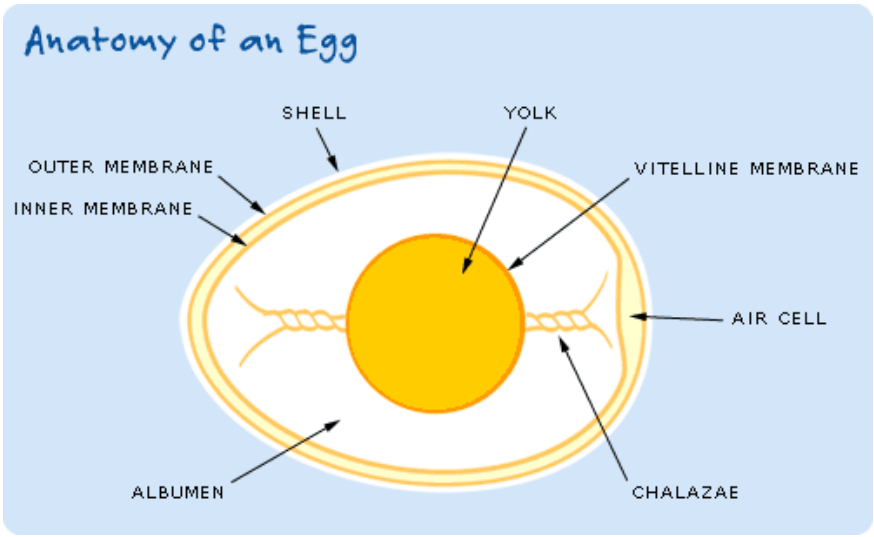

Figure 2.1 The main features of a bird's egg. The air cell grows as water vapour is lost during incubation, and provides air to the chick just before hatching (Birkhead 2016).
(Diagram from https://www.exploratorium.edu/cooking/eggs/eggcomposition.html accessed on 26 August 2016, © The Exploratorium, www.exploratorium.edu)

Birds' eggs vary widely in size, shape, shell thickness, colour and texture, the evolutionary reasons for which are in many cases still not well understood. The worlds' smallest and largest birds' eggs belong to the smallest and largest birds in the world: the hummingbird (11-14mm on its long axis) and the ostrich (up to 175mm) (Walters 1994a). However, relative to the bird's body weight, ostrich eggs are tiny (less than 2%) whereas kiwi and

storm petrel eggs can weigh almost a quarter of the parent (Walters 1994a; Birkhead 2016). Shell thickness can vary from less than 0.05 mm for very small eggs to around 2mm for ostrich eggs (Pryne 1963). Different shapes of egg include spherical, conical, biconical, elliptical, oval and pyriform (pear-shaped), along with occasional abnormalities (Birkhead 2016). Textures can range from smooth, even slick, to rough and chalky. Colours and patterns vary even more widely across different species, from plain white (e.g. woodpeckers and owls), to brightly single-coloured eggs such as the American robin, to pencil-like scribbles on the eggs of the wattled jacana *(ibid.)*. Some types of egg, notably those of the guillemot, also exhibit considerable variation *within* species. (*ibid.*) Given such a diversity of forms and patterns, it is not difficult to see why birds' eggs were an attractive target for collectors.

If taken into a collection, the biological development of a bird's egg is halted. Instead of potentially hatching into a chick, the egg is emptied out, and the eggshell is taken into the human world, becoming an item of material culture.[5] Some writers (e.g. Tilley *et al* 2006b, Knell 2007) treat natural entities as material culture even before the point of any human intervention, so that eggs would always count as material culture (even in the nest). Others may identify the egg becoming material culture at the point when an egg is taken by a collector, or when it is 'blown' to empty its insides, by which stage it has been irrevocably altered by human activity. Some points of view would maintain, that despite being brought into human culture, even into museum collections, blown birds' eggs are still different in kind from more obviously human-made artefacts (such as, say, ceramic pots): 'museum nature' as opposed to 'museum culture' (categories discussed by Alberti 2008) . Different attitudes to these questions could affect the categorising of eggs in a museum: as natural history specimens or as some other type of object. Space precludes further discussion here; suffice to say that, unless one lies at the extremes of these debates, it is clear that birds' eggs are objects of natural origin but which when brought into collections, become part of human material culture to at least some extent. The hybrid status of birds' eggs – as both natural and cultural objects – creates tensions that will become apparent throughout this thesis.

Egg-collecting is a mode of interaction between humans and the animal world. As such, it is germane to the field of 'animal geographies' which, along with animal studies over a

[5] See Pearce 1994; Tilley *et al.* 2006b; Hicks and Beaudry 2010, for some currents and debates in material culture studies.

wider range of disciplines, has been a burgeoning field in the last two decades, '[b]ringing the animals back in' (Wolch and Emel 1995: 632) to consideration after previous years of neglect. As Philo and Wilbert (2000: 2) argue, '[h]umans are always, and have always been, enmeshed in social relations with animals to the extent that the latter ... are undoubtedly constitutive of human societies in all sorts of ways.' Historical geography can bring to light some earlier modes of these interactions, such as egg-collecting, which may have largely disappeared from today's world.

Certain thematic concerns in animal geographies are of particular relevance to egg-collecting (for a wider overview of the whole field, see Buller 2014, 2015a and 2015b). Firstly, there are accounts of 'the spaces and places of encounter' (Jones 2000: 268) between humans and animals, aptly termed 'animal landscapes' by Matless *et al.* (2005: 193); examples include deer-hunting and reindeer-herding in the Scottish Highlands (Lorimer 2000; 2006) and angling in Yorkshire rivers (Eden and Bear 2011). For egg collectors, a wide range of geographical locations, and types of habitat, formed the animal landscapes where they came to take eggs, and where they often also came into contact with the birds who laid them.

Another key thematic for studying egg-collecting is '[a]nimals and the moral landscape' (Wolch 2004 197: italics removed). As Buller (2015a: 423-424) explains:

> Animal geographers provide a dynamic spatial framing for what Proctor (1998) might call a 'descriptive ethics', revealing how different human material and semiotic constructions and orderings of space/place create differential conditions for moral behaviour and social/ethical practice with respect to non-humans.

For example, Woods (2000) considers how, in debates in the 1990s about British fox-hunting in Britain, foxes were represented variously as 'sporting foe' (*ibid.*: 184), pests and victims. Matless, Merchant and Watkins (2005) contrast two other types of hunting in mid twentieth-century Britain: wildfowling and otter-hunting. Although, broadly similar in essence, with both involving hunting and killing animals, they showed 'differential abilities to accommodate to modernity and seek modern style, the wildfowler restyled as newly efficient, the otter hunter cast as archaic relic' (*ibid.*: 202). The stories in this thesis will reveal egg-collecting as closer to otter-hunting than wildfowling in its fortunes, struggling to find acceptance in post-war Britain.

Within animal geographies, there has been a gradual broadening of interest and concern

from a focus on 'higher' species, especially mammals, to include those lower down the pecking order of human concern, such as invertebrates of various kinds (e.g. Bear 2011; Ginn 2014). By taking birds' eggs as its focus, this thesis extends these considerations to entities with an ambiguous status: of animal origin, and with the potential to become a fully-fledged animal (literally), but arguably not quite achieving the status of living being. Human disquiet around these ambiguities, it will be argued, is a catalyst for ethical debates about them. In addition, given the ambiguous ontological status of eggs, in these debates the focus of ethical concern has tended to shift between eggs themselves and the birds that they might become, individual parent birds, wider populations of birds, and even the moral development of the collector.

Natural history collecting has not attracted sustained attention from animal geographers, but other writers provide conflicting views on the matter. Shepard (1996) provides a broadly positive view of collecting, arguing that the interest of collectors and other humans in animals is a continuation of much earlier modes of fascination with animals, including among hunter-gatherer societies. He speculates that:

> Memories of boyhood collecting [including of eggs] somehow inform my theory … that the human species emerged enacting, dreaming, and thinking animals and cannot be fully itself without them (*ibid.*: 4).

Shepard notes the strong links between collecting and classifying, claiming of collecting that 'at heart it is an exercise in nomenclature' (*ibid.*: 43). Much of this interest is based on the sheer variety found within nature in general and the animal kingdom in particular, even within species, so that '[t]he bird-watchers or fern collectors or gem hounds rampage mildly in the sweet bliss of infinite typology' (*ibid.*: 55). Collecting and classifying natural things are, for Shepard, activities that connect with the world, answering fundamental human needs.

An opposing view was held by novelist-naturalist John Fowles, who also started out as a collector (this time of butterflies) but later argued (1984: 78) that 'collecting animate objects such as birds' eggs or insects for pleasure must be evil. No moral choice of our time is clearer.' Furthermore, for Fowles, collecting is an example of 'the hobby approach to nature', which:

> … turns nature … into the mirror in which you flaunt your skill at naming. It drains nature of its complexity, of its richness, of its poetries, of its symbolisms and

> correspondences, or its power to arouse emotion – of all its potential centrality in human existence (*ibid.*: 83).

Fowles' views resonate broadly with those of Berger (1980), the art critic, writer and cultural historian who identifies the treatment of animals in modern capitalist society – as pets, spectacles in zoos, and arguably by extension as suitable objects for collection – arising out of alienation from earlier modes of living in which the lives of humans and animals were much more closely intertwined.[6] Thus for Berger, an intellectual interest in animals is evidence of the increasing distance from their lives in the modern industrial (and post-industrial) age, although he does not discuss collecting specifically.

Shepard, on the one hand, and Fowles, on the other, provide two contrasting views of natural history collecting. For Shephard, such collecting is representative of human 'enchantment' with animals, and nature more widely, whereas for Fowles it is a form of 'estrangement' of humans from the natural world. This opposition can also be identified in more general literature on collecting, which will be discussed below. Beforehand, though, the symbolic and aesthetic allure of eggs will be briefly considered.

The symbolic and aesthetic allure of eggs

> I think, that, if required, on pain of death, to name instantly the most perfect thing in the universe, I should risk my fate on a bird's egg. (Higginson 1862: 368-369)

Eggs have great symbolic power. As Sloterdijk (2011: 323) notes, '[t]hrough its magical symmetry and quintessential form, the egg had served as the cosmization of chaos since Neolithic conceptions of the world'. For example, in Aristophanes' *The Birds*, the world emerged from Chaos as a 'Primordial Egg' (Aristophanes 1950: 76), while the mythology of the Dogon people of Mali includes 'the egg of the world' (Griaule and Dieterlin 1954: 84) which contains basic patterns repeated throughout Dogon society. Serjeantson (2009) notes that ritual deposits of eggs have been found in ancient Greek and Roman graves, as well as in New Zealand. Eggs can also have taboo power: despite being a readily available source of protein, some cultures shun eating them because of their associations with fertility (Simoons 1994). Perhaps surprisingly, Armstrong's survey of *The Folklore of Birds* (1958) does not devote specific attention to eggs.

[6] See Tuan (1984) and both Anderson (1995) and Davies (2000) for discussions by geographers of pets and zoos respectively.

Eggs have also featured in art and fashion. For example, the work of Hieronymus Bosch contains numerous eggs, including a painting called 'The Concert in the Egg' (Figure 2.2). Fabergé eggs, created for the Russian royal family and other wealthy clients, fetch huge sums of money when they (rarely) come up for auction, and Alexander McQueen's 'Widows of Culloden' 2006 autumn/winter collection included a headdress with a nest containing seven eggs made from topaz and silver.[7] Despite their opulence, however, these simulations seldom match the beauty of the real thing.

Figure 2.2 Hieronymus Bosch (or follower): *The Concert in the Egg*.
(http://www.wikiart.org/en/hieronymus-bosch/the-concert-in-the-egg-1480, accessed on 16 July 2016)

Figure has been removed due to Copyright restrictions.

Figure 2.2 'Bird's Nest headdress, made with Swarovski gemstones by Philip Treacy and Shaun Leane, for Alexander McQueen's Widows of Culloden collection, autumn/winter 2006.'
(https://www.theguardian.com/fashion/gallery/2015/mar/08/alexander-mcqueen-savage-beauty#img-1, accessed on 16th July 2016)

[7] It is perhaps indicative of the current legal and ethical climate that the headdress contained artificial eggs but real bird wings.

In his treatise on *The Bird*, the French historian Michelet admires the egg's form:

> Let us take the egg in our hands. This elliptical form, at once the easiest of comprehension, the most beautiful, and presenting the fewest salient points to external attack, gives one the idea of a complete miniature world, of a perfect harmony, from which nothing can be taken away and to which nothing can be added. No inorganic matter adopts this perfect outline. (Michelet 1981: 65)

His later compatriot Bachelard (1994), in his discussion of the lived experience of different kinds of spaces, devotes attention to nests and to shells, but he is concerned with living in shells (like molluscs) rather than eggshells.

In his survey of different spatial forms of human existence and interaction based on the assertion that '[l]ife is a matter of form' (Sloterdijk 2011: 10), Sloterdijk includes a brief *excursus* on 'the egg principle'. Here he notes that 'the egg is a symbol that teaches us … to think of the sheltering form and its bursting as a unity' (*ibid.*: 324), and so implicit in an egg is the necessity of it being broken open (for example by a hatching bird). Although Sloterdijk does not mention egg-collecting, his comments invite the question: by preserving the physical unity of the eggshell, does the collector then suspend or rupture the phenomenological unity of the egg? These types of metaphysical questions may contribute, at least subconsciously, to the ethical disquiet of egg-collecting. Setting aside these issues for the time being, attention will now turn to consider collecting as a cultural phenomenon more generally, and its treatment from a number of disciplinary perspectives including psychology, psychoanalysis, anthropology, sociology and, not least, geography.

Collecting and collectors: types, motivations, studies

Collecting has been approached from a wide range of disciplinary angles, and is a long-standing topic of cultural history. Two collecting compendia (Elsner and Cardinal 1994; Pearce 1994a) contain much useful material, and other monographs have been called on where relevant (e.g. Rigby and Rigby 1944; Belk 1995). Literary and fictional accounts (Nabokov 1969; Fowles 1963; Chatwin 1988) also provide insight. In combination, these sources reveal collecting as a highly complex activity, open to many different interpretations, some of which may well be valid simultaneously according to the aspect of collecting being considered, or at different levels of analysis (e.g. group or individual, conscious or subconscious).

The study of collecting can begin with a discussion of what marks out or defines a collection as opposed to being simply an amalgamation of objects or other things. In particular collecting is often contrasted with mere hoarding or accumulating. Pearce (1994b) discusses this distinction and offers various earlier definitions, including the following:

> We take collecting to be the selective, active, and longitudinal acquisition, possession and disposition of an interrelated set of differentiated objects (material things, ideas, beings, or experiences) that contribute to and derive extraordinary meaning from the entity (the collection) that this set is perceived to constitute. (Belk *et al.* 1990: 8)

Pearce (1994b) picks up the idea of the collection as a set or series being something over and above the sum of its parts, as well as the notion of the collection taking shape over time (so buying another's collection in one fell swoop is not really collecting). However, she is sceptical of the notion of collecting necessarily being 'active' in the sense of acquiring objects for a self-consciously styled 'collection'. In particular, building a collection may not always start deliberately, as emphasised by Rigby and Rigby (1944: 83):

> Rarely does a man arise upon a certain morning and announce abruptly, over his breakfast coffee "Today I shall begin a collection!"[8] It is far more common to waken to the sudden realization that one has, without intent, already become a collector ... the processes leading up to the birth of the collector are slow and inconspicuous. There is boring from within and nudging from without – and behold! A combination of events has finally roused the hidden daemon.

Similarly, Bal (1994) argues that the beginning of a collection can only be identified retrospectively, as part of an individual's life narrative.

Once underway, one common factor in many definitions of collecting is still that it is a deliberate activity, requiring intent by the collector, and therefore Pearce (1998: 3) suggests that 'the best definition of a collection is simply that a collection exists if its owner thinks it does'. Under this definition, however, whether a group of objects is somebody's collection can change according to the whims of that person over time, and it does not account for collecting by collectors 'in denial', of which there may be plenty.

[8] The literatures consulted here tend to position the collector as 'male', which is overwhelmingly the case for egg collectors, but also reflects the vintage and politics of some of the sources consulted.

Before becoming any more bogged down by the exact semantics of the term, it can be accepted that 'collecting is too complex and too human an activity to be dealt with summarily by way of definitions' (Pearce 1994b: 159).

There are various theories offered about the motivations for collecting, and Formanek (1994) provides a summary of psychoanalytical thought about collecting which seeks to expose its unconscious roots. A connection is often made between toilet training and 'anal-erotic' impulses in later life, manifested through collecting, usually of 'typical copro-symbols' (Jones 1950: 328), of which an egg is an ideal example since it is ejected from the (female) body. Alternatively, collecting is seen as a substitute for sexual activity, a view dating back to the origins of psychoanalysis in Freud (see Forrester 1994). Bal argues that collecting is a form of fetishism, which she describes as 'a strong, mostly eroticised attachment to a single object or category' (Bal 1994: 105), arising from a displacement of sexual desire from a focus on a person to either a specific part of a person or an object associated with them. 'Relational-model' theories, such as Kohut (1984), arguably provide a more nuanced framework for analysis, where an individual's behaviour is determined by a web of relationships with other people (and things) rather than overwhelmingly by sexual impulses. In this model, 'collecting represents a need of the individual to explore, be in contact with others, and search for personal stability' (Formanek 1994, 329). Acquiring things helps to maintain a sense of self or, as a corollary, losing personally important things can have a deleterious effect on one's sense of self.

As well as the deep-seated explanations attempted by psychoanalysis, consideration has been lent to a variety of other possible psychological motivations for collecting. Baekeland discusses some of these possibilities such as making the world more intelligible, providing a structure for the collector's life, and being 'an allowable pleasure for a person who finds it hard to indulge himself' (Baekeland 1994: 213) or to satisfy creative impulses without an outlet elsewhere. The thrill of the hunt may provide another important motivation for collectors. Viewing collecting as a type of hunt accents a fundamentally spatial aspect of collecting: the collector must leave their home (or lair) and venture out into the field to hunt for new pieces, which are then brought back to be added to the rest of the collection. Rigby and Rigby describe how:

> The true collector is a transformed hunter. Although his hands are seldom bloodstained, his intense concentration, like the hunter's is pointed toward the objective of getting a full bag. There is the same following of clues, the same

> wile and guile, the matching of wits and the pitting of strengths, the tense expectation as the pursuit nears its conclusion, the deep exaltation following a triumph. Like the hunter, the collector studies his prey and develops his own flair ... And like the hunter, he sometimes relishes the sport leading up to the kill as much if not more than the kill itself. (Rigby and Rigby 1944: 388)

Notable here is an emphasis on the *process* as much as the end *product* of collecting, an emphasis evident in many accounts of egg-collecting.

The hunt for collections invariably brings the collector up against other collectors, which raises the prospect of competition between them, sometimes fierce. This element of competition, and outwitting opponents, can itself be an important motivation for some collectors. A more indirect form of competition is the valorisation of rarity and uniqueness, finding its ultimate expression in the probably apocryphal tale of the wealthy book collector who buys and then destroys a rival's copy of a book which he had hitherto believed himself to be the sole owner (Baudrillard 1994).

Other collectors may be motivated by the pleasures of ownership and the exclusive rights that it confers to enjoy handling the collection. Chatwin's fictional Kaspar Utz, collector of Meissen porcelain, describes how:

> An object in a museum case ... must suffer the de-natured existence of an animal in the zoo. In any museum the object dies – of suffocation and the public gaze – whereas private ownership confers on the owner the right and the need to touch. As a young child will reach out to handle the thing it names, so the passionate collector, his eye in harmony with his hand, restores to the object the life-giving touch of its maker. (Chatwin 1988: 20)

A number of important aspects of collecting stand out here. Firstly, there are the sensuous pleasures that ownership of material objects can provide, taking enjoyment in their physical properties. Secondly, the collector can also gain satisfaction from playing God, establishing dominance and control over the objects in the collection. Thus collections may allow individuals to enjoy feelings of power, which may be particularly important to them if they do not have much power over the rest of their lives. Thirdly, there is the idea of museums as representing a kind of death for an individual's collections, which will be seen in the concerns of some egg collectors. Finally, there is the idea of the 'passionate collector', which is also mentioned by other theorists. Baudrillard (1994: 9) writes that 'the collector partakes of the sublime not by virtue of the types of things he collects ... but by virtue of his fanaticism'. For most collectors this passion is tempered by other influences,

such as career or family life, but for some it can tip over into compulsion, addiction or obsession.[9]

If collecting is painted as being at least slightly pathological in several of the treatments discussed above, there is also evidence that collecting can be a positive force in people's lives. It may provide a focus lacking in other parts – say a lonely personal life or a dull career – but there is no need necessarily to posit a lack in other aspects of collectors' lives which they are seeking to fill. Danet and Katriel (1994: 228), in their study of play and aesthetics in collecting, find that '[c]ollecting and classifying objects and experiences is a source of joy to both children and adults'.

Various theories have been formulated to categorise different types of collectors or collecting. Collecting can simply be a way of remembering past experiences, places visited or people known. This is the collection as *souvenir*, a concept also explored by Stewart (1984) and treated by Pearce (1994c) as nostalgic and romantic. In *fetishistic* collecting, the urge is to collect as many objects, or samples, of a particular kind as possible (the extreme case being the uncontrolled accumulation practised by compulsive hoarders). In *systematic* collection, on the other hand, objects are collected based on a classificatory schema designed to improve knowledge, with an emphasis on gathering together examples, 'intended to stand in for all the others of their kind and to complete a set' (Pearce 1994c: 201). Pearce, unsurprisingly as a museum professional, approves of systematic collecting but characterises souvenir and fetishistic collecting as individual coping mechanisms, 'part of an attempt to create a satisfactory private universe' (Pearce 1994c: 201). She thus presents a moral hierarchy of collecting, with some motives seen as more acceptable than others; and similar distinctions, it will be shown, have also been evident in the rhetoric of egg collectors.

It is not always clear, though, that types of collections can be so clearly demarcated. The memories involved in building up a collection can themselves give comfort and pleasure, which is not the same as simple souvenir collecting. Here the objects are not being kept for the personal associations that they bring; rather, the associations arise from the memorable moments when the objects were found or purchased. Collections are particularly ripe for acting as repositories for memory since collectors tend to have very good recall of every

[9] See Davis (2008) for a discussion of obsession as a phenomenon arising from the tendency towards specialisation (including, perhaps, collecting) in the modern period. Muensterberger (1994) provides a highly speculative study of collecting-as-obsession.

significant acquisition that they make, meaning that ‘a collection has a history just as much as the items of which it is composed’ (Baekeland 1994: 209). Other categories may also blur. For example, systematic collecting can easily become fetishistic, with the collector unable to resist the temptation to obtain yet another item, perhaps rationalised as being a ‘spare’ or a unique variant. Still other commentators have attempted to categorise collectors based on factors such as whether collectors primarily collect according to affective or cognitive criteria (Danet and Katreil 1986, discussed in Belk 1994), or the degree of conscious intention, structure and spatial dispersion evident in a collection (Belk 1994). As with Pearce’s attempted demarcations, difficulties can arise with borderline cases, the sheer multiplicity of different real-life collectors, and overlapping motivations. Allen (1994: 394) notes of natural history collecting that ‘there can be a delight in shapes and colours and patterns that co-exists with the mere pleasure of acquisition or the sheer satisfaction of having evidence of some additional knowledge’.

As well as collecting objects, it is possible to collect experiences or immaterial things, such as jokes and slips of the tongue, as Freud did (Forrester 1994) or (perhaps the present-day replacement for egg-collecting) birdwatching for rare species (Moss 2005). In some ways the contrast between material and immaterial collecting may be overdrawn, given the importance of memory in collecting and the pleasures attached to recalling ‘the hunt’. Nonetheless, the specific pleasures attaching to a physical collection of objects indicate that there are also real differences between collecting material things and experiences.

The expectation of completion is a more obvious feature of some collections than others: a child’s sticker album, for example, has an obvious point of completion, as does a particular set of cigarette cards. The question arises, however, of whether the collector is really aiming for completion, or whether this signature achievement could in fact lead to existential doubt or emptiness: if one is a collector, what does one become when the collection is finished? For Baudrillard (1994: 13), ‘the collection is never really initiated in order to be completed’, since it is the absence of the missing item that allows the collector to continue their quest and thus, in metaphorical terms to defer death. Strategies to avoid the ‘death’ of completion include: moving on to another series or collection (either related to, or very different from, the current one); tightening the quality criteria to obtain higher quality specimens; or even deliberately leaving the last item in the set empty. Other collectors may be less concerned with the symbolic death of completion, but more worried about the fate of their collection after their actual death. Rigby and Rigby (1944: 45)

speculate that building a collection is an attempt to achieve immortality, and that the collector 'sometimes feels that, like a strong boat, it will bear him through the centuries after his body has gone to the earth again'. Belk (1994: 323) observes more drily that 'there is a tendency with age for both the collector and his or her family to begin to be concerned with post-mortem disposition' This type of preoccupation that was evident with many egg-collectors and will be discussed briefly in Chapter 7 in the context of donating collections to museums.

What, then, is the status of the collector in society? A curious hybrid possibly, partly viewed as a manic, obsessive figure driven by a desire to add to his or her collection at any cost, but also as an aloof, slightly cold-blooded creature who finds greater satisfaction in objects or lists than in the ordinary worlds of human relationships: 'If it is true that "he who collects nothing must be a cretin", he who does collect can never entirely shake off an air of impoverishment and depleted humanity' (Buadrillard, 1994: 24). In opposition to this ultimately pathological reading, collecting can also be viewed as a celebratory act, helping to cement relationships with things, people and places. Csikszentmihalyi and Rochberg-Halton (1981: 139) quote a boy who says that 'all my special things make me feel like I'm part of the world', which captures the idea of collecting as a means of engaging with, not withdrawing from, the world. While retaining a critical stance on aspects of egg-collecting, this thesis will also give room to this more charitable interpretation, acknowledging that collecting can represent 'enchantment' with the world at least as much as 'estrangement' from it.

Anthropological, sociological and geographical aspects of collecting

The discussion so far has been informed chiefly by the perspectives of psychologists, psychoanalysts and museologists, but other disciplinary fields have addressed collecting. Unsurprisingly, collecting has been the subject of attention from anthropologists, seeking to understand similarities and differences in its role across different cultures. Pomian (1990) discusses historical examples of the collection as a space separated off from the usual flow of objects and materials in society. When placed in a collection, objects are taken out of normal currency and afforded special protection: in this sense they are made sacred.[10] This matter highlights the role that collecting can play in how the status of objects

[10] For Benjamin (2006: 39), by being placed in a collection, 'things are freed from the drudgery of being useful'.

may change over time. In Thompson's (1979) system of value, becoming a collectable is an important way in which an object can change in status from being 'rubbish' (of zero value) to being 'durable' (of increasing value). As well as investigating *why* collecting takes place, from the point of view of the individual collector and society, the question of *what* is collected, and by *whom*, can also provide useful insights into the relationship between collecting and the wider culture of which it is a part. Various authors (e.g. Mauries 2002; Blom 2002; Pomian 1990) discuss the popularity of 'cabinets of curiosity' in the early modern period, in which all manner of strange and exotic objects, both natural and artefactual, were displayed together by wealthy individuals. Later, more systematic collections became popular, the reasons for which will be discussed in the case of natural history below. Belk (1995) identifies the modern-day popularity of collecting consumer objects or their representations as a manifestation of the consumer society which collectors now inhabit.

Different groups in society (based on, say, age, gender or class) have also collected different types of things. Belk and Wallendorf (1994) and Pearce (1995) discuss sociological aspects of gender in collecting, including ways in which collecting can reflect stereotypical gender roles, such as women's collections being diminutive, homely and informal, while men seek to show their strength and conquer nature. At the same time, collecting can also blur boundaries between genders 'as an individual participates in the masculine hunt for additions to the collections, as well as feminine nurturance in curating the collection' (Belk and Wallendorf 1994: 231). Some forms of collecting have barriers to entry based on the costs involved, and not necessarily of purchasing objects. Attempting to collect the eggs of all British bird species (by one's own hand) required enough disposable income and leisure time to visit far-flung corners of the British Isles to find species endemic to particular regions, as indicated by the social class of many of the egg-collectors described in Cole and Trobe (2000, 2011). Thus, there is an economics of collecting, which is potentially exclusionary to certain groups of people. In addition, certain types of collecting, especially of certain types of art, imply levels or types of *cultural* capital, as well as economic capital, which may effectively exclude less privileged sections of society (Bourdieu *et al.* 1991).

Another way of considering collecting from a sociological perspective is as a form of 'serious leisure'. This term was coined by Stebbins, who defines it as 'the systematic pursuit of an amateur, hobbyist, or volunteer activity that is sufficiently substantial and

interesting for the participant to find a career there in the acquisition and expression of its special skills and knowledge' (Stebbins 1992: 3). This definition fits with the activities practised by serious oologists, in contrast with the thousands of superficial 'dabblers' (*ibid.*: 10), who collected eggs unsystematically for amusement or diversion. Stebbins identifies a number of features of serious leisure that distinguish it from more casual forms, and egg-collecting will be assessed against these criteria when discussing the characteristics of individual collectors.

When considered as a collective enterprise, egg-collecting can aptly be characterised as a 'culture of enthusiasm'. Other such cultures, such as those of technology and architecture enthusiasts, have been the focus of some recent attention in geography through the work of Geoghegan (2009; 2013) along with collaborators (Craggs *et al.* 2013). Fine's concept of 'idioculture' is also useful. Fine (1979: 734) defines an 'idioculture' as 'a system of knowledge, beliefs, behavio[u]rs, and customs shared by members of an interacting group to which members can refer and employ as the basis of further interaction'. Although Fine bases his analysis on the case study of a baseball team, in which members physically interacted with each other, the concept of an 'idioculture' can also be applied to groups that may be widely dispersed physically but whose members can interact through print or other collective spaces that allow them to come into each other's orbit, as was the case with egg collectors.

The geographies of collecting (and the collecting of geography)

In most of the discussion above, the spatialities of collections have been implicit rather than explicit, and this is also the case with much of the writing on collecting. However, there are numerous different spatial aspects to collections. Firstly, there is the spatial ordering within a particular collection. For example, in his three-dimensional system of classification for collections, Belk (1994) includes as a factor the degree to which a collection is centralised or spatially dispersed.[11] There is also the geographical location of the collection; that is to say, the place where it is held. The same collection may be conceptualised and categorised differently in different places and times. Hence, Hill (2006) uses Clifford's influential construct of the 'art-culture system' (1994: 263) to illustrate how African tribal objects in the Wellcome Collection were exhibited in 1930s London as

[11] Belk's other two dimensions are conscious/unconscious (the degree of intentionality involved) and structured/unstructured (the degree of order evinced).

ethnological ‘authentic artefacts’, whereas in 1960s Los Angeles the same pieces were shown as ‘authentic masterpieces’ of art, subject to modernist principles of display and lighting. The importance of classification in collecting is a theme that recurs in this thematic review. Hill also highlights the dispersal of objects in the collection from one huge collection in London to various different collections all around the world.

As well as the location and movement of objects once they have become part of a collection, each collection is connected to a geography (or geographies) of origins: where the objects were sourced. As such, objects in a collection can evoke the places they were taken from, especially for the original collector (arousing strong memories), but also for others who may never have visited the places in question. Martins and Driver (2005) and Douglas and Driver (2005) discuss the role of collections, and the written and visual records of the collectors who voyaged to amass the specimens, in constructing imaginary geographies of the tropics for a metropolitan British audience in the eighteenth and nineteenth centuries.

Duclos (2004) discusses the links between places and the objects collected there as ‘cartographies of collecting’ (*ibid.*: 86), noting parallels and interconnections between collections and maps, and investigating ‘how the aesthetic, taxonomic and symbolic value of objects is used in constructing a notion of place, and how place is, in turn, integral to creating a sense of identity’ (*ibid.*: 87). Collecting is a form of mapping in that it is a physical trace of the places from which the objects were collected, arranged in a particular way. ‘As stimuli for geographic imaginings or catalysts for a ‘cartographic consciousness’, objects have an immense amount of emotional, locomotive power’ (*ibid.*: 98). In addition, these encounters can open up new psychic spaces when they interact with an individual’s imagination and other experiences. Thus collections ‘map out what we might call landscapes of desire – real or imagined destinations to which we can travel using objects as our symbolic guides’ (*ibid.*: 87). Duclos warns, however, that both collections and maps are ways of attempting to control the world, selective interpretations that can mislead through distortion or omission. Although not a geographer, she specifically mentions the potential value of cultural geography (and implicitly historical geography) in understanding the historical connections between collecting and cartography.

As well as collecting *from* different places, and the power that it can have on the geographical imagination, collecting *of* different places has received attention, such as the

phenomenon of ‘Munro-bagging’: climbing all the mountains in Scotland over 3,000 feet high. Lorimer and Lund (2008) consider various aspects of this immaterial form of collecting, with its geographical and cartographic pleasures of reaching the summit, orienting oneself in the surrounding landscape and identifying nearby peaks, as well as satisfactions common to other forms of collecting, such as accumulating, remembering and recording the peaks climbed. The notion of completing this collection is also discussed, since climbing all of the 284 listed summits is challenging yet feasible for a fit walker, so ‘the Munros neatly encapsulate the art of the possible’ (*ibid.*: 193). The authors note earlier, however, that some walkers may be reluctant to identify themselves as engaged in the pursuit (*ibid.*: 187), suggesting that the taint of pathology can attach to this practice, as it does to other forms of collecting. Once again, there is a tension between seeing collecting as ‘enchantment’ or ‘estrangement’.

Histories and geographies of science and natural history

As well as being a ‘culture of collecting’ and a ‘culture of enthusiasm’, egg-collecting (usually known in this context as oology) can also be considered as a scientific discipline. Attention to historical debates will show that oology was not considered a valid science by many of its opponents, but whether it merited status as science or pseudoscience is a moot point. Oology *was* treated and discussed as a science by its more vocal advocates, who attempted to furnish it with the formal institutional trappings of a science, such as its own societies and publications, as will be traced in Chapter 6. Recent literature on the history and geography of science is therefore pertinent in enabling greater understanding of the epistemic and spatial formations by which a science comes to be recognised internally and externally, by practitioners and peers. Applying insights from these studies of science is also relevant to oology because, through their egg collections, oologists have left material of lasting scientific value, even if their own personal contributions to scientific knowledge were more limited. A brief introduction to social and cultural studies of science will provide some context.

Until the late twentieth century, scientific knowledge was largely held to be outside the purview of social and cultural study. Histories of science tended to be internalist, explaining advances by invoking scientific discoveries and theories made by brilliant individuals (‘great men’), rather than seeking explanations from wider social or cultural

factors. The exception was when scientific theories were found to be erroneous, in which case external factors were sometimes accepted as explanations of their previous popularity. However, over the past decades some scholars have sought to question the previously accepted exceptional status of scientific knowledge as a bastion immune from outside influence, developing purely according to its own internal logic. For example, the Strong Programme in the Sociology of Scientific Knowledge sought instead to seek social explanations for the development of science (Barnes 1977). Another approach particularly influential in geographical circles, Actor-Network Theory, promulgated by Latour (1987; 1999) and others (e.g. Callon 1994, 1999; Law and Hassard 1999), holds that the 'nature' studied by science, and the 'society' that includes scientists studying it, are inextricably enmeshed in networks of human and non-human 'actors' in ways that, among other things, preclude a simple correspondence of scientific theories with pre-existing laws of nature simply waiting to be discovered by scientists. Many other studies of science have investigated the interactions of science, culture and society in different case studies, taking a variety of stances (sometimes implicit) on the relationship of scientific knowledge to the phenomena it seeks to explain, and also on the extent to which cultural and social factors affect the content, as well as the conduct, of science. Through these various and sometimes competing theoretical approaches, the study of science as a socially and culturally situated activity (for which the broad term 'science studies' is useful) have become firmly established. Much of this work has emphasised the importance of studying scientific *practice* and not just the theories distilled from this practice.

In terms of its scientific credentials, oology forms a sub-discipline of ornithology, which is itself a sub-discipline of natural history. Yanni (1999: 2) provides a definition of natural history:

> ... for the most part Victorians used the term to describe the study of objects found in the natural world, including micro-organisms, plants, animals, rocks and fossils. Naturalists examined animals, vegetables and minerals for their physical characteristics, origins, inter-relationships and distribution.

While this definition refers to the Victorians, it is also applicable to natural history in other periods. The rise, heyday and enduring popularity of natural history have received considerable scholarly attention, and there are numerous accounts written for the general reader (e.g. Jenkins 1978; Anderson 2013) broadly following a traditional, internalist approach, based on the contributions of a few key individuals. Barber charts *The Heyday of Natural History* (1980) in Britain from 1820-70 through a number of important books and

their authors, invoking some social history in the process. Allen's scholarly yet accessible social history (Allen 1994) discusses different aspects of British natural history from before the eighteenth century to the present. The essays collected in *Cultures of Natural History* (Jardine *et al.* 1996) go further towards interrogating natural history as a cultural phenomenon, from the sixteenth to the twentieth century. Reflecting some of the broad currents of science studies discussed above, Jardine and Spary (1996: 8) argue that the interactions between natural history and broader cultural values deserve attention, and that:

> in so far as natural history is a discipline, it lends itself to treatment in terms of the conventions, skills and strategies – let us call them, collectively, practices – through which knowledge claims have been promoted, secured and defended.

Some of the contributing essays (e.g. Larsen 1996; Outram 1996) are discussed below in specific contexts, and others provide valuable broader contextual information. For example, while the popularity of egg-collecting endured for a century or more, Allen (1996) describes some shorter lived fashions and fads, such as those for ferns and sea life. Drouin and Bensaude-Vincente (1996) investigate some of the strategies used by popularisers of natural history, including appeals to aesthetic sensibilities and notions of self-improvement. While these essays mainly refer to periods slightly earlier than the twentieth century, from which dates the primary historical material studied in this thesis, the same broad intellectual currents retained a hold well into this later period.[12]

When trying to understand natural history in broader intellectual currents, Foucault's concept of the *épistème* proves useful (Foucault 2002). In a particular era, the *épistème* is 'the unconscious, but positive and productive set of relations within which knowledge is produced and rationality defined' (Hooper-Greenhill 1992: 12). In the Renaissance *épistème* of the early modern period, things were understood to have hidden relationships which were subject to interpretation based on various types of similitude (*ibid.*: 12-13). This world-view engendered a culture of curiosity, in which natural specimens were treated as objects of wonder, juxtaposed with each other and with interesting human-made artefacts (Whitaker 1996). In the eighteenth century there was a broad move towards a more systematic understanding of the natural world through the study of 'natural history', with different living things assigned their allotted place in what was seen to be the eternal natural order of the world. This approach to categorising the natural world characterised what Foucault called the classical *épistème* and was based mainly on entities' visible

[12] Endersby (2008) investigates the career of the Victorian botanist Joseph Hooker, providing further broad historical context, structured around practices such as collecting, corresponding and publishing in turn.

anatomical attributes, prompting Foucault (2002: 144) to describe natural history as 'nothing more than the nomination of the visible'. Collecting was a key part of this intellectual current, as representative examples were sought of all the different species and *taxa* of nature, as laid out in the theories of Linnaeus and others.

Into the nineteenth century, the natural world was increasingly considered as dynamic rather than static, with evolutionary theory asserting that species and other taxonomic categories were not fixed eternally. This shift into the modern *épistème* was accompanied by growing interest in the processes of nature, and the superseding of natural history by biology, which sought 'to penetrate the internal workings of the living organism to discover their fundamental causes' (Nyhart 1996: 426). Commentators (e.g. Allen 1998) have observed that in the decades leading up to the turn of the twentieth century, experimental biology, usually practised in university laboratories by professionals, grew in status compared to natural history, which was more often seen as the preserve of amateurs. However, in his study of 'biology and natural history in late Victorian Yorkshire', Alberti (2001) argues that there were many interactions between amateurs and professionals, and the term 'amateur' encompassed a wide variety of motives and identities. Furthermore, Drouin and Bensaude-Vincente (1996) note that natural history was a key factor in the nineteenth-century popularisation of science, and arguably remains so today.

The preceding discussion has focused mainly on the *temporal* development of natural history, taken as part of science more widely. Over the past quarter-century, reflecting a broader 'spatial turn' in the humanities (Warf and Arias 2009), there has been growing interest from geographers and other scholars in *spatial* aspects of the development and dissemination of scientific knowledge (Ophir and Shapin 1991; Driver 1994; Shapin 1998; Smith and Agar 1998; Livingstone 2003; Naylor 2005a, 2005b; Powell 2007a; Finnegan 2008).[13] As Withers and Livingstone argue (2011: 3):

> … geography, like time and embodiment, *is* an essential thing: just as there is a rich history of science, so there is a rich geography of science. Explaining the places and spaces of science is as coherent and rich a project as ... explaining its temporal dimensions.

Science can be considered spatially from a number of different, interacting perspectives. One approach is to investigate science as carried out in specific parts of the world, at a

[13] Plenty of spatially and geographically-centred accounts of science preceded the 'spatial turn' and will be cited where relevant.

variety of scales, from the local and civic, through regions such as counties, to whole nations or even beyond.[14] This approach could be described as 'place'-based geographies of science. Another approach to considering science spatially is to focus on the different 'sites from which scientific knowledge emerges' (Livingstone 2003: 14-15), such as the field, laboratory and museum: 'space'-based geographies of science, so to speak. Most historical studies of necessity include a combination of both space and place, since scientific spaces must be situated in a particular location or locations, and the scientific spaces in a given place can generally be categorised as of one type or another (e.g. laboratory; museum); nevertheless, the distinction is still useful. Collective spaces such as associations, societies and journals form another set of key spaces for science, possibly immaterial or geographically dispersed, rather than situated in a particular place, although always geographically bounded to some extent. They will be discussed in more detail in the section on collective spaces of science below.

This thesis is therefore structured around a series of key spaces for egg-collecting: the habitats from where birds' eggs were originally taken ('the field'); the places where collectors would prepare eggs for entry into their collections (their 'laboratory', usually in practice their home); the social spaces where collectors exchanged information and sometimes eggs, and nurtured a collective identity (where matters of circulation become central); and 'the museum', where many individual collections have ended up. This site-structured approach broadly follows the journeys that eggs have taken from field to museum. Although not explicitly a regional or national study, the museum, collectors and collectives that form the basis of this thesis are or were all British, which imparts a national flavour to the findings.[15]

In his studies of how science accumulates by extending networks, Latour (1987; 1999) provides some evocative concepts for considering the spaces of science. He implies that a spatial approach is crucial when he declares that '[s]cience studies is not defined by the extension of social explanations to science, but by emphasis on the local, material, mundane sites where the sciences are practised' (Latour 1999: 309). For Latour, science proceeds, and succeeds, by converting the abundance of the world into forms that are 'mobile', 'stable' and 'combinable' (Latour 1987: 223) as 'inscriptions':

[14] These different scales may also interact, so that, for example, a history of science in a particular country may, in essence, boil down to one or more key cities in that country.
[15] Despite GM and many of the donor egg collections being Scottish, there has been no attempt to identify a distinctly Scottish, still less Glaswegian, strain of egg-collecting, partly because the archival record is too sparse for such generalisations.

> … a general term which refers to all the types of transformations through which an entity becomes materialized into a sign, an archive, a document, a piece of paper, a trace. Usually but not always inscriptions are two-dimensional, superimposable, and combinable … [T]hey are also called "immutable mobiles"… (Latour 1999: 306-307)

Although these 'immutable mobiles' are usually two-dimensional, collections of specimens are three-dimensional examples, objects that can withstand being brought back from distant parts of the world to 'centres of calculation' (Latour 1987: 232) such as a laboratory or museum. Thus, for Latour (*ibid.*: 225), 'the history of science is in large part the history of the mobilisation of anything that can be made to move and shipped back home'. Here, at home, they can be stored, compared with each other and with earlier specimens in the collections, and perhaps also translated further into inscriptions such as photographs, or measurements of dimensions and weights, that can be further circulated.

Latour gives a vivid case study of the transitions and translations that take place from the field to the laboratory, and beyond to the collective world of science, in his chapter on 'Circulating Reference' in *Pandora's Hope* (1999). Here he recounts shadowing a group of pedologists (soil scientists) and other scientists in the Brazilian Amazon, seeking to assess whether the savannah was advancing on the rainforest, or *vice versa*, and in either case, how it was happening. Latour describes the 'chain of transformation' (*ibid.*: 70) that takes place in order to translate the richness of the field site into forms amenable to scientific analysis, noting what is preserved, what is jettisoned and what is gained. For example, the soil of the rainforest is not amenable to scientific analysis unless it is somehow transformed into a more usable form. The pedologists do this in a number of stages. For example, small samples of soil can be taken from various meticulously recorded locations in the field site and brought together in close proximity and compared, perhaps even shipped to a distant centre of calculation for comparison with samples from elsewhere. However, to make them even more combinable and communicable, the samples must undergo further transformations, such as using a colour chart to assign a standardised colour to each soil sample, or drawing a diagram showing the variation of key characteristics in a cross-section of soil. These inscriptions can be reproduced and sent all over the world, thereby converting the original soil of the field site into scientific knowledge.

As will be shown, these concepts can also be applied to egg-collecting, considered as a

process of translating eggs taken intact from nature into more readily transportable and storable eggshells, and also into forms of data, converting the physical properties of eggs, and the circumstances of their originally being collected, into inscriptions that can be shared and reproduced without being tied to one particular place.

Histories and geographies of ornithology and oology

Specific discussion of egg-collecting has been limited in general histories of British natural history and ornithology, although these books provide very useful contextual information. In their histories of British natural history introduced above, Allen (1994) only mentions egg-collecting in a few specific instances, and Barber (1980) not at all. In histories concentrating on ornithology, Bircham's broad survey (2007) also only mentions egg-collecting briefly: covering the controversies of the 1920s, such as the conviction of Edgar Chance, in a short discussion of changes to the law and in noting that the newly founded British Trust for Ornithology refused to take a public position on bird protection (including the challenges to egg-collecting) in the 1930s.[16] Moss (2005), generally antagonistic in tone towards egg-collecting, briefly mentions its early twentieth-century popularity, the breakaway of oology from the British Ornithologists' Club, and some notable ornithologist-collectors, such as Francis Jourdain, Desmond Nethersole-Thompson and John Walpole-Bond.[17] Wallace's (2004) more idiosyncratic history of British birdwatching has a paragraph on Jourdain, who also merits a sub-section in the survey of Anglo-American bird-collecting (mainly of skins rather than eggs) by Mearns and Mearns (1998). Birkhead's (2016) guide to the biology of birds' eggs discusses historical aspects of guillemot and great auk egg-collecting. Shrubb, in his 'history of the exploitation of wild birds' (2013: 3), discusses egg-collecting for both subsistence and recreation, and cites earlier works blaming recreational collecting for the demise of numerous species. Lovegrove's (2007) historical account of the persecution of British wildlife mentions egg-collecting as a general factor in population decline, especially in Scotland, and more specifically as a contributing cause of the demise of already-rare species such as the osprey and sea eagle.

[16] See Chapter 6 of this thesis for discussion of Chance's conviction.
[17] Moss (2004: 196) also mentions that broadcaster Bill Oddie started out as an egg collector but gave up after blowing some rotten pheasant eggs. See Appendix 2 for brief biographies of Jourdain and the other collectors listed here, along with a few others.

Histories of conservation have proved helpful in understanding how the legal situation developed in respect of birds' eggs, and the wider conservation context at different times. Sheail (1976) discusses the different bird protection acts that were in force before the Protection of Wild Birds Act 1954, as well as the introduction of that Act, following 'the longest and most complex Bill ever introduced by a private member' (Sheail 1976: 35). Marren (2002) covers the period 1950 to 2000 and provides a discussion of the machinations behind the Wildlife and Countryside Act 1981, but he does not mention the clauses covering birds' eggs specifically. Evans (1992) provides a brief overview of bird protection from Victorian times, and mentions some of the societies opposing egg-collecting in the 1930s.

Despite oology being practised by very few individuals today, its history attracts a number of dedicated readers who are avidly interested in its history. Specialist publishers exist to supply this readership, foremost among them being Peregrine Books, based near Leeds and run by Jim Whitaker, once a keen collector himself (Cole and Trobe 2011: 117-120). Peregrine, and sometimes Whitaker under his own name, have published reproductions of the diaries of numerous notable collectors (*ibid.*: 119) and *In Search of Breeding Birds* (1992), a collection of articles by Nethersole-Thompson originally published in *The Oologists' Record* in the 1930s. Another specialist publisher is Nebularia Books of Leominster, run by Tony Waddell, whose publications include reproductions of the diaries of notable collectors such as Norman Gilroy and John Christian.[18] These books are often produced in private print runs and thus copies are not required to be deposited at the copyright libraries such as the British Library. As such they are hard to obtain, and copies that come up for sale can be prohibitively expensive, factors which add to the cloak-and-dagger atmosphere surrounding oology even when attempting to research its history.

Peregrine has also published a few more comprehensive surveys of egg-collecting that have been hugely useful in this thesis. *The Egg Collectors of Great Britain and Ireland* (2000), by Andrew Cole and William 'Bill' Trobe, is mostly comprised of 'A Compilation of Profiles of some 20th Century Egg Collectors', as its subtitle indicates. As well as details of around two hundred collectors listed in alphabetical order, the book provides extremely useful notes about the development of the specialist oological societies and publications in the early twentieth century. This volume has since been augmented by an *Update* (Cole

[18] *Tringa nebularia* is the Latin name for the greenshank, one of the most elusive British birds and thus with very highly-prized eggs (Nethersole-Thompson 1951; Simson 1966). Waddell also publishes *The Oologist*, introduced in 2015 to replace the *Bulletin of the Jourdain Society*.

and Trobe 2011) which includes profiles of more collectors, as well as additional notes on some of the collectors in the earlier volume. These books have been crucial sources of information for this project, providing rich information and details about the collecting activities of significant collectors, their interactions with other collectors, and often wider biographical information too (where collectors lived and their occupation, marital status and character traits). It will be seen that these works include a few collectors who are represented by eggs held at GM. These compendia are not academic works, and lack detailed and rigorous references, but they are by far the most comprehensive source available for information on twentieth century collectors, and the authors are known to be experts on their subject. Of course, these works are not exhaustive, and there are likely to be many important collectors who were active outside the social networks of oology, or otherwise did not come to attention of the authors.

Peregrine has also published a history of *The Egg Dealers of Great Britain* (Cole 2006). This book charts the rise and fall of the trade in eggs, peaking around the turn of the twentieth century and dying out after the 1954 Protection of Birds Act. There is a comprehensive list published by Sotheby of major British natural history auction sales (Chalmers-Hunt 1976), including an overview of ornithological sales with the comment that 'one is immediately struck by the great frequency of oological material offered for sale' (Simson 1976: 25). A further monograph from Peregrine is *The Uses and Curation of Birds' Egg Collections: An Examination and Bibliography* (2003), by Martin Limbert, then a curator at Doncaster Museum. Topics addressed include 'Museum display', 'Oology, identification and visual images' and 'The value of birds' eggs in scientific research'. These books have all provided useful material for this thesis.

As well as accounts from the early twentieth century heyday of oology, Peregrine has published the memoirs of Colin Watson (2009). Watson was a collector of some notoriety, who deliberately antagonised the RSPB and the police, partly based on what he saw as vindictive treatment by them (including towards his wife). He describes incidents in various parts of the British Isles, including the near-death and permanent injury of a young companion on a snowy cliff in the Lake District. He also recounts his 'complete euphoria' (*ibid.*: 142) after managing to collect kite eggs from a heavily guarded site in Wales, possibly re-enacting similar actions by Nethersole-Thompson over fifty years earlier (see Chapter 6). Watson died in 2006 after falling out of a larch tree near his home in South

Yorkshire, ostensibly while inspecting a sparrowhawk nest.[19] From the other side of the fence, memoirs have also been published by police officers who were involved in combating egg-collecting (Robinson 1982; Stewart 2008).

Occasionally egg-collecting makes the national news in Britain, for example if there has been a major prosecution. These stories are sometimes accompanied by pieces along the lines of 'What drives these strange men to do these things?'. Some treatments of the subject are slightly more considered, such as a *New Yorker* article (Rubinstein 2013) which discusses '[t]he hunt for illegal egg collectors in the UK', concentrating on Matthew Gonshaw in some detail. He is perhaps the archetypal 'obsessive' egg collector of popular imagination, a loner who has sought out rare species and devised complicated ways of taking their eggs.[20] Gonshaw also appears in the trailer for 'Poached', a 2015 film about egg-collecting by an American director, Timothy Wheeler. Overall, most accounts of contemporary egg-collecting stress its abnormality and illegality, contributing to its difficult status, and they often imply these characteristics for collecting in earlier eras as well.

Critical discussion of ornithology and oology in human geography, and other humanities disciplines, has been sporadic. Milton (2008), a historian, gives an account of Victorian debates over egg-collecting in children's periodical press, an indication that the practice was seen as ethically problematic, in some quarters at least, as far back as the late nineteenth century. These debates also demonstrate the then popularity of egg-collecting, as it must have been widely practised in order for it to be considered a suitable subject for *Boy's Own Paper* and other popular comics and magazines. Greer has brought a geographical approach to bear on connections between ornithology and British military culture in late nineteenth-century Gibraltar, with specific attention paid to egg-collecting. Greer (2009) discusses how field ornithology became a suitable practice for expressing masculinity, and the bodies of both soldiers and birds were enlisted 'as a means to demonstrate imperial presence' (*ibid.*: 44). Greer (2013) uses ornithological specimens and data (including eggs now held in a British museum) to examine the role of ornithology in constructing 'a military imagination of the Mediterranean as an intermediary zone for the transient office from temperate Britain to and from tropical India' (*ibid.*: 4).

[19] Reported at: http://news.bbc.co.uk/1/hi/england/south_yorkshire/5294900.stm (accessed on 21 July 2016).
[20] Gonshaw received a prison sentence and the first ever Anti-Social Behaviour Order for a wildlife crime, prohibiting him from visiting Scotland in the breeding season (Rubinstein 2013).

Ryan (1997; 2000) touches on themes relevant to ornithology in his surveys of how imperial identities were constructed through photography. In particular, he discusses relationships between big game hunting and photography, with the latter used as a record of, and increasingly a replacement for, the former. This situation arguably has parallels with the broad trend away from collecting birds and eggs in favour of observing them, and thus provides a useful comparison. The claims by some of oology's protagonists that it was a field sport, to be treated like hunting, will be discussed in Chapter 6, as will disputes between egg collectors and photographers. In addition, the contributions of imperial servants such as Charles Pitman and Charles Belcher, in different outposts of Empire, to the collective efforts of oology will be noted.

As will be seen, the early to mid-twentieth century was a crucial transitional period in British ornithology, with the eclipse of collecting-based practices, such as oology, by birdwatching and an emphasis on observation. Macdonald (2002) provides a useful contextual study of the period 1930-55, discussing conflicts and ambiguities between the 'scientific-critical response and the emotional, aesthetic response' (*ibid.*: 65) to observing and identifying birds.[21] Toogood (2011) concentrates on the spatial arrangements of organised bird observation in 1920-40, with an army of local observers helping to collate data for a central archive. This example of 'new ornithology' was organised by (among others) Max Nicholson who, Chapter 6 will go on to show, was prominent in debates about the validity of egg-collecting. Oology during this period receives more dedicated attention from Lorimer (2014) in his work on the 'Homeland' of the controversial naturalist and collector Desmond Nethersole-Thompson, a central figure in the world of British oology in the 1930s. Lorimer gives a brief but evocative depiction of this world, which was already developing a clandestine feel despite egg-collecting not being outlawed for another two decades. Some of the subjects touched upon, such as the practices of tree-climbing and egg-blowing, and the social world of egg-collecting, will be investigated in more detail later in this thesis. Having discussed literature focusing on ornithology and oology, attention will now turn to studies of the different generic spaces germane to oology and egg collections: the field; the laboratory (represented by the collector's home); formal collective spaces such as associations and publications; and the museum.

[21] See Lynch and Law (1999) for a discussion of how matters of identification in birdwatching allow 'entry into classic epistemological debates on the relationship between words, objects, and activities' (*ibid.*: 320).

The field

In the context of egg-collecting, 'the field' is the generic name for the diverse specific locations from where eggs were originally collected, forming a crucial site for this thesis. Science studies initially neglected the field as a site, devoting more attention to the laboratory as the classic site of scientific endeavour (see below). Over the last twenty years, however, attention has expanded to include the field (e.g. Kuklick and Kohler 1996; Outram 1996; Camerini 1997; Cooper 1998); its central place in the mythologies of geography and exploration more specifically has also garnered attention (Powell 2002, 2007b; Richards 2004; Naylor 2010a; Naylor and Ryan 2010). As a term, the field carries connotations of somewhere distant from home, reached by a special trip or expedition. Many egg-collectors did go on such expeditions, including to far-flung destinations such as the Arctic and the Tropics, but the field could also be found much closer to home, even just down the road from one's home. Uniting all these locations to a greater or lesser degree is that they are unbounded, and much less 'closed and controllable' (Kuklick and Kohler 1996: 2) than the laboratory (or collector's home). The uncertainties of the field are compounded by its including 'not only the material attributes of a location ... but also the people occupying and utilizing these locations' (Cloke *et al.* 2004: 4). Thus as well as the physical challenges caused by different types of terrain and climate, visits to the field often involved social encounters with human inhabitants and visitors.

Outram (1996) discusses George Cuvier's arguments in Enlightenment France for the epistemological superiority of laboratory knowledge, displayed by the 'sedentary naturalist', over what could be gained in the field:

> The field naturalist has unbounded spaces at his disposal. His observations are vivid, instantaneous, active, and dramatic, and allow him to display all the manly qualities of courage, energy, and mastery of the earth's surface. But he has little *over*view of the natural order as a whole; his view of individual things is fragmented and insecure, in spite of their momentary precision and vividness. (Outram 1996: 261)

Furthermore, as Cuvier wrote:

> If the sedentary naturalist does not see nature in action, he can yet survey all her products spread before him. He can compare them with each other as often as is necessary to reach reliable conclusions. … The traveller can only travel one road; it is only in one's study (*cabinet*) that one can roam freely throughout the universe…

(quoted in Outram 1996: 260-261)[22]

Despite such arguments, fieldwork has been considered a necessary and valid form of scientific endeavour in many disciplines, seen to carry its own authority, as much experiential as strictly epistemological. The very difficulties and dangers of the field are seen as implying that only those of adequate moral fibre can tolerate them, and:

> From the belief that outdoor physical activity builds moral character, field scientists fashioned an epistemological touchstone: the rigours of the field inculcate the personal discipline necessary to make field-workers reliable witnesses and reporters, credible to nonparticipants. (Kuklick and Kohler 1996: 6)

Taken to extremes, this attitude could lead to a moral calculus based on levels of hardship endured in the field. As Heffernan (2001) comments on the injuries to and subsequent death of Alexander Gordon Laing in attempting to be the first Western European to provide a reliable report of Timbuctoo, travel to far-flung places (of which fieldwork is a variety) brought with it questions about the trustworthiness of participants and their reports. Evidence of physical hardship provided a type of proof, and '[a]uthority ultimately derived, if not from premature death itself, then at least from the corporeal evidence of heroic travel – the noble empowering stigmata of scarred and disfigured bodies' (*ibid.*: 219). Given the rigours of the field, a strong physical constitution was taken as a prerequisite for undertaking exploration or fieldwork, as it was for explorers such as Mungo Park (e.g. Withers 2004). In turn, the rigours of fieldwork were seen as useful in honing practitioners' physical and mental skills so that, as mentioned earlier, field ornithology was encouraged among service personnel stationed in nineteenth-century Gibraltar (Greer 2009).

Activity in the field both reinforced and circumvented social conventions and power relations. Male scientists often relied on their familiar domestic arrangements, supported by their wives, since '[t]he moral economy of the home travelled to the field with little modification' (Lorimer and Spedding 2005: 29). Collectors and other fieldworkers working overseas also often gained assistance, mostly unacknowledged, from local inhabitants (Greer 2009), and many relied more broadly on the infrastructure of colonial rule (Kuklick and Kohler 1996). On the other hand, the field could also be a site for personal reinvention and liberation from social conventions, especially for women (*ibid.*).

[22] Cuvier's arguments presage Latour's notion of 'centres of calculation' discussed earlier, places where aspects of the world can be brought together under one roof, and thereby turned into scientific knowledge.

More generally, the field was a space where traditional identities were more mutable than at home, with blurred boundaries between amateurs and professionals (*ibid.*), although this distinction was less important for egg collectors, who were almost all amateurs.

The laboratory

'The laboratory' is a key space for science. , and as such it has been the focus of considerable scholarly attention (e.g. Shapin 1988; Latour and Woolgar 1986, for historical and contemporary accounts respectively). In the context of natural history and other sciences based on collecting specimens, the laboratory is where the raw material taken from the field is converted into the order of scientific knowledge. When considering oology as commonly practised – individual, amateur egg-collectors taking eggs for their own private collections – the laboratory of popular imagination, peopled by scientists in white coats using expensive and complicated equipment, is not applicable. However, at a more generic level, the oologist did usually have his own version of the laboratory in the form of his home. There he could turn eggs into blown specimens ready for entry into his collection, and induct them into the appropriate part of the collection by classifying them into different species.

The laboratory has a few key differences from the field. Whereas it is the distinctiveness of each location in the field that makes it worth visiting for scientists, the ideal laboratory is untainted by the particularities of its location, and could in principle be anywhere. As Kohler (2002a: 204) writes, 'place is as crucial to field practice as it is irrelevant (except as a nuisance to be controlled) to what goes on in labs'. Another key difference is that the field is open to all manner of different individuals; on the other hand, access to the laboratory is usually tightly controlled, with only specific individuals permitted. Overall, in contrast to the variety and general messiness of the field, with laboratories 'their isolation and lack of particularity is a symbolic guarantee that knowledge produced in one holds anywhere' (Kohler 2002b: 473). As Kohler goes on to demonstrate, though, laboratories have not always achieved their desired 'placelessness' (*ibid.*), and the 'lab-field' border is permeable in numerous different ways. For example, egg collectors would often have to perform ostensibly 'laboratory'-based tasks while still the field, as eggs might have to be blown before getting them home and classification was often made on the spot (e.g. identifying the parent birds near nesting sites). Even so, epistemologically these activities

are more appropriate to the controlled space of the laboratory than the unbounded, unpredictable spaces of the field.

Kohler (2007: 430) identifies natural history as one of the 'collecting sciences, [which] though they deal with widely different subjects, are united by practices of finding and keeping physical objects, often in bulk'.[23] Taken into the order of a scientific collection, natural history objects such as birds' eggs become *specimens*, which Larsen (1996: 358) describes as:

> … objects of natural origin that had been prepared in ways that allowed them to be examined, compared to similar objects and described in a concise, informative manner. They were manageable pieces of the natural world that could be bought, sold, exchanged, transported, catalogued, displayed and consulted by many people. Specimens were not, however, natural objects: they were artificial things designed and constructed by naturalists to answer various scientific needs.

Specimens present the difficulty of finding, taking and transporting them intact, and later inducting them into a collection and preserving them. Larsen (*ibid.*) describes some of the equipment used in the three main branches of natural history – zoology, botany and geology – although she does not discuss egg-collecting, except to note its popularity. One interesting point she raises, for which birds' eggs provide an obvious example, is the relative popularity of hard specimens compared to soft tissue specimens (especially in Britain compared to France), with the former being easier to preserve and to handle (*ibid.*).

While being crucial to the practice of natural history as a branch of science, specimens have also been representative of other motivations for collecting:

> In addition to their central role in the science of natural history, specimens played a crucial part in what might be called the spirit of natural history: they were the interface between the naturalist and the natural world in all its variety. The aesthetic power of specimens and the adventure of collecting them in the field were motivations as basic to most naturalists as their desire to discover the order behind nature's wonderful complexity. (Larsen 1996: 377)

The role of oology as a conduit both for scientific enquiry and other, less cerebral forms of enthusiasm will be a recurring theme of this thesis. For the time being in this literature review, however, the focus remains on eggs as scientific specimens and attention will now turn to questions about their classification.

[23] Kohler identifies the other main collecting sciences as palaeontology, ethnology and archaeology.

Natural history expressed and exhibited in a systematic collection is dependent on classification and taxonomy, since specimens need to be identified as belonging to particular categories. In their discussion of systems of classification and standards, Bowker and Star (1999) define a classification as:

> a spatial, temporal, or spatio-temporal segmentation of the world. A "classification system" is a set of boxes (metaphorical or literal) into which things can be put to then do some kind of work – bureaucratic or knowledge production. (*ibid.*: 10)

Collectors need to segment the world in this way in order to know what they are collecting, and in particular when to stop; without knowing into which category a specimen fits, they would not know whether or not they need to add it to their collection. Bowker and Star (*ibid.*: 16) also discuss 'boundary objects[,] … those objects that both inhabit several communities of practice *and* satisfy the informational requirements of each of them'.[24] This concept can potentially be applied to birds' eggs, as the objects of numerous overlapping, perhaps simultaneous forms of interest such as scientific enquiry, sporting enthusiasm and aesthetic appreciation.

The problems of classification reflect the epistemological difficulty of slicing and dicing the things of the world into a complete system of consistent and mutually exclusive categories (*ibid.*: 10-11), such as bird species. This in turn rests on the question of whether the categories are human constructs, or whether they reflect real boundaries in the structure of the world, known by philosophers as 'natural kinds' (see, for example, Hacking 1999; Ellis 2008). For Kohler (2006: 227), who regards species as the only natural kind in the animal kingdom, '[t]he act of sorting and categorizing is as theoretically creative as any scientific act'. Larsen (1996: 360) notes a 'two-way interaction between the specimen material and the practice of classification', with the availability of specimens affecting what classifications are made, and the mode of classification affecting what specimens are collected.

Kohler (2006) offers a detailed instance of this type of interplay in late nineteenth-century America, when a shift from collecting selected specimens towards more comprehensive 'survey' collecting revealed considerable variation within species. This variation led to the concept of the subspecies or trinomial as a 'natural kind' at a more detailed level, which

[24] The 'boundary object' concept was introduced by Star and Griesemer (1989).

encouraged yet more collecting to identify these gradations. In turn, further collecting revealed so many local variations within species that eventually the subspecies model broke down and was replaced by that of the breeding population. Although questions of the finer points of taxonomy were not immediately important for the vast majority of British egg collectors, changes in classification would eventually affect the categories they were seeking to represent in their collections.[25] As discussed in Chapter 5, many collectors sought to collect a representative clutch of each British breeding species, so if a variant was subsequently identified as a distinct species, many collectors would then seek out its eggs.[26]

Collective spaces of science

The preceding two sections on field and laboratory have mainly concerned the individual collector, working along in his home or in the field. Attention will now turn to the collective and institutional spaces of science, in which collectors could interact with other, either in person, or more remotely. Indeed, when considering spatial aspects of oology treated as a science, a key set of questions revolves around how scientists come into contact with each other, either in person or at a distance through media such as print. Formal institutional structures can be created, such as societies and associations, with meetings that take place under their auspices. Printed material such as books and journals provide another conduit for scientists to interact and promulgate their findings. Through these different means, scientists in a particular discipline or sub-discipline can come together to the benefit of individual members in that they could encounter other like-minded people, and helping them to self-identify as protagonists of their chosen discipline. As a collective, they can gain through strength in numbers and presenting a formal face to the outside world, fostering a collective identity and building credibility. These factors were particularly important in the case of oology, which was subject to considerable disapproval from other parts of the ornithological world, and from the wider public. The creation of collective spaces and institutions also enables the circulation of scientific knowledge and practices, as well as of scientists themselves. As Secord (2004) argues, investigating 'knowledge in transit' is a crucial component of understanding how science spreads beyond isolated practitioners and sites. Questions of circulation are inherently

[25] Some collectors did engage with these debates (e.g. Stuart Baker 1923).
[26] Research for this project did not uncover any cases of where this happened, but it could have done in principle.

geographical, as they deal with the movement of ideas and things across different places and spaces.[27]

At a broad level, formal and institutional structures of science form part of a wider public intellectual sphere. As such, they can contribute to the formation of national identity, as Withers (2001) has discussed in the case of Scotland. One way of forming collectives is for scientists to join associations or societies, which may confer social as well as scientific status on members (Finnegan 2009: 9). Societies have operated in a wide range of different social strata, from the rarefied atmosphere of the Royal Society, with its informal rules of gentlemanly comportment, to lower-middle or working class groupings, meeting in a variety of different types of location, even public houses (Secord 1994). Some societies were based in one place, and their members could therefore convene in person, whereas others were more widely spread geographically, necessitating the formation of 'imagined communities' (Anderson 1983). Philo (1994) discusses one such community, that of British lunatic asylum doctors, who created a formal Assocation in 1841 which was 'a highly intangible phenomenon, consisting as it did in little more than the commitment of its members and a few scraps of paperwork' (*ibid.*: 265), but one which had its own distinctive geography.[28] In particular, members debated the choice of Assocation meeting places, and such physical spaces were crucial to the success of many other societies. For example, Naylor (2002) shows how a number of physical spaces – the museum, lecture hall and different field sites – were crucial for the activities of Cornish natural history societies (and one in particular) in the nineteenth century. These spaces, and the societies which operated in them, contributed to the development of a distinctive scientific identity for the region, both 'as a container for a diverse array of sites where science was conducted … [and also as] an object of analysis' in its own right (Naylor 2010b: 9).

Another way in which scientists can come together is through publication, and the material, textual space of the printed page can contain myriad immaterial, literary spaces (Ogborn 2006, Saunders 2010; Philo and McGeachan 2014). Book geography forms a lively field, investigating a variety of topics such as book or journal 'production, distribution and consumption' (Ogborn and Withers 2010: 10; see also, for example,

[27] In his overview of the geographies of science, Livingstone (2003) devotes a section (the other two being devoted to 'site' and 'region') to questions about the circulation of scientific ideas through travel, imagery and the testimony of trusted witnesses. These aspects of circulation are perhaps most readily found in print spaces, such as the oological journals discussed in this thesis.

[28] The full title of the organisation was 'the Association of Medical Officers of Asylums and Hospitals for the Insane' (Philo 1994: 265).

Ogborn 2007; Keighren *et al.* 2015). However, questions of 'production, distribution and consumption', such as how and where publications were produced, and details of their circulation, although interesting, are not a primary concern of this thesis. Rather, the focus is on what was written within oological journals, and elsewhere, about egg-collecting, and how these writings contributed to the self-image of oologists and their representation among the wider public. That is, I am seeking the 'spaces in the text' (Saunders 2010: 437), rather than the 'spaces of the text' (*ibid.*), whilst bearing in mind that factors such as the journal format, the availability of authors, and the intended audience, carry certain conventions and constraints which colour the tone and content of the published texts.

Specialist journals and magazines provide a very fruitful source for the researcher of early to mid twentieth-century oology, and the contents of one journal in particular, *The Oologists' Record*, will be subject to detailed scrutiny in this thesis. Ethical debates about egg-collecting also reached the wider periodical press, including field sports magazines and even the national newspapers. As Shuttleworth and Cantor (2004: 7) note, '[p]eriodicals ... are by nature more open and multi-vocal than books', qualities which can render them a particularly varied source of information and debate. Scholars have written on interactions between nineteenth-century science and periodicals of various types (e.g. Cantor and Shuttleworth 2004; Cantor et al. 2004; Henson et al. 2004) but twentieth-century relationships have been less closely scrutinised.

The museum

Having considered the key sites of science germane to egg-collecting as practised by individual collectors, and spaces both material and immaterial where they could convene and communicate, focus will now turn to another type of institution where many individual egg collections are now held: the museum. Given the multiple roles and functions of museums – stores of collective memory; expressions of cultural or political power; resources for educating the public; as well as stores for scientific research – the range of literature called on will be broader than in the previous sections, which focused more specifically on studies of science. Some particular aspects of museums will be given particular attention, especially collections and display, by consulting some of the large body of literature on museums by practitioners (including curators) and other interested parties. The main focus will be on natural history museums or sections of museums,

although it should be noted that eggs could potentially also be included in other categories such as ethnological collections. As elsewhere in this chapter and thesis, the recurrent strands of geography and difficulty will be drawn out during the discussion.

A definition of the museum provided by the International Council of Museums in 1995 is:

> [A] non-profit making, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates and exhibits for the purposes of study, education and enjoyment, material evidence of people and their environment. (Quoted Alexander and Alexander 2008: 2)

This definition opens up a number of questions and tensions, to be considered further below, including the appropriate degree of public access; the balance between educating and entertaining visitors; and the extent to which the material properties of museum objects, as opposed to their contextual meanings, should be emphasised.

The history of natural history museums closely parallels the history of natural history, discussed above, and some broad currents can be noted, again usefully based on Foucault's *épistèmes*.[29] Most commentators identify the early modern 'cabinet of curiosities' of the Renaissance *épistème* as the ancestor of the contemporary museum. These cabinets contained an assortment of objects juxtaposed in such a way as to provoke wonder, as a 'browsing field of pleasing fragments to gather, discuss and gape at' (Stafford 1994: 225) rather than attempting to show logical connections between them. In the eighteenth century, as knowledge became subject to 'radical systematization' (Bennett 1998: 350) during the classical *épistème*, these haphazard cabinets gave way to more a more tightly classified arrangement of objects. The idea of the 'universal museum' emerged, attempting to show the order of nature, with each species or other natural kind represented by an emblematic specimen in a comprehensive display. Yanni (1999: 3) argues that natural history was a ripe subject for this type of museum collecting and display:

> Since natural history focussed on objects, it was the branch of science most easily presented in museums. Furthermore, collecting actually contributed to the development and legitimization of the discipline … Taxonomy, one of the essential practices of natural history, was made manifest.[30]

[29] Some commentators (e.g. Hooper-Greenhill 1992; Bennett 1995), taking a broader Foucauldian approach, have emphasised the importance of museums as manifestations of power, directing the visitor's thought and behaviour in particular ways.

[30] It should be noted that Yanni is sceptical of 'cultural master narratives' (Sherman and Rogoff 1994: xi) imposed by museums, arguing that they usually disguise a number of different theories co-existing with each

Into the nineteenth century, a number of major changes took place. The modern *épistème*, with its emphasis on developmental concepts such as evolution, introduced a temporal aspect to display which had not been necessary before. In order to incorporate these new principles, often with humanity (equated with 'man' at the time) presented as the culmination of evolutionary development, 'exhibitions were conceptualised not just as containers of scientific facts, but as themselves integral to the scientific message' (Macdonald 1998: 12). Another trend identified by some histories of natural history and biology was the eclipse in the late nineteenth century of the scientific importance of museums, with their collections of natural history specimens, by university laboratories where experimental biology was practised. However, Nyhart (1996) and Kraft and Alberti (2003) argue that museums in fact continued to facilitate useful scientific work during this period, and coexisted constructively with laboratories.

A further late nineteenth-century development was the separation of two distinct functions for museum collections, with the majority of objects removed from public view and a smaller, ostensibly representative selection left on display. The prototype for this separation came at the Natural History section of the British Museum (now the Natural History Museum), where there was a protracted debate between Richard Owen, who 'wanted to show everything' (Yanni 1999: 149), and William Henry Flower, a follower of Thomas Huxley, who 'wanted the displays to be simple and clear' (*ibid.*).[31] Huxley and Flower eventually prevailed in the late nineteenth century, and a split between 'research' and 'display' collections has proved abiding in natural history museums, leading to the typical situation in many of today's museums where the vast majority of natural history specimens are not on public display.

These historical developments in the history of museums have been paralleled by a growth in public access to museums. The growth of the museum out of the 'cabinet of curiosity' ushered in a change from individual and restricted enjoyment of museum collections to a wider audience. This change brought with it a whole host of concerns about the appropriate extent of access to museums. In particular, should access be granted, or even encouraged, for the growing ranks of the working classes? One school, following the ideas of Joshua

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other, and that museum displays and architecture … turn out to be surprisingly resistant to Foucauldian analysis' (Yanni 1999: 8). For a contrasting reading of Foucault, arguing that he was aware of the existence of counter-knowledges (in the plural) resisting any single dominant narrative, see Philo (2007).

[31] Barber (1980) also discusses this debate.

Reynolds, thought that 'those who run' (a metaphor for the working or artisanal classes) lacked the free time necessary to cultivate intellectual abilities (Bennett 1998). Moving into the nineteenth century, however, those that favoured using museums to help educate the working classes gained ascendancy, especially as museums were increasingly public rather than private institutions, often attached to universities, and debates largely moved on to the best means of display to achieve these aims.

Today many museums (in the UK at least) are open to all interested visitors, although some require special application or pre-booking. Formal access for everybody, however, does not necessarily mean that all sections of the population will feel equally comfortable actually visiting museums. Bennett (1995: 104) notes that, while the modern museum 'organized and addressed a public made up of formal equals' it also served to differentiate populations via a combination of cultural markers' which spoke, and continue to speak, more readily to the more highly educated and more privileged socioeconomic groups than to others (for example, see Bourdieu *et al.* (1991) on art gallery visiting).[32] Having considered briefly these questions of museum history and access, attention will now turn to issues pertaining to museum collections.

Museum collections

A fundamental role of museums is to house collections of objects. As such, there is a considerable body of work on museum collections, covering aspects such as acquisition, preparation, cataloguing, usage, storage, conservation and disposal, as well as display. Knell (2005) makes a number of critical points about contemporary museum strategies with regard to collecting. For example, he discusses the introduction of codified collecting policies by many museums, all meant to provide a rational basis for collecting, but which Knell castigates for focusing too much on 'simple object acquisition', encouraging 'myopic parochialism, and thousands of museums pursuing their own isolated policies'(*ibid.*: 14). He also challenges museums to be less reluctant to dispose of material when appropriate, perhaps being circulated to other institutions if they would provide a better fit in their collections. The prospect of disposal and even destruction is a potential threat to egg collections, which often sit unloved in museums especially if institutions lack specialist curators (see Chapter 7).

[32] Social inclusion in Glasgow museums (including GM and other institutions) is a central theme of Beel (2010).

Museum collections can be used for various purposes. This discussion will concentrate on two major types of usage for natural history collections, based on the distinction between 'research' and 'display' discussed earlier, subsuming other possible categories of usage, such as education, enjoyment, memory and creativity (Keene 2005). Except Limbert's monograph (2003), there has been little written specifically on the uses of birds' egg collections. In a summary of a seminar held on 15th February 1990 at the Natural History Museum in Tring on birds' egg collections, Sutcliffe (1993) covers topics such as egg thefts, acquisition, curation, the possibility of a registration scheme, and display and interpretation. Walters (1994b), in a write-up of his talk at the same seminar, emphasises the importance of research as a use for egg collections, and some examples of their research potential will now be considered.[33]

Research on collections

Scientific research on museum egg collections can cover a variety of topics, for which Limbert (2003) provides a brief survey. A notable example is Derek Ratcliffe's (1967) study of eggshell thinning in raptors, which used peregrine falcon eggs now in the GM collections and eventually led to the banning of the pesticide DDT in most countries. This study provides an example of birds' eggs being used as '*Biological filter paper* … Just as historical anthropogenic objects like books can reflect changes in human history, so too can preserved specimens enable us to appreciate and measure changes' (Winker 2005; 967). Limbert (2003) also mentions the value of the data accompanying birds' eggs for phenological research, which aims to study periodic natural processes (such as in the climate) by the periodic arrival and departure of different species in particular locations. The fundamental oological data items of species, location and date thus provide this information, in a type of study that is closely related to biogeography, a distant ancestor of contemporary animal geographies.

Commentators on the value of natural history and ornithology collections (e.g. Remsen 1995; Suarez and Tsutui 2004; Winker 2004, 2005; Kiff 2005) discuss the importance of continuing to collect specimens for these kinds of purposes, bemoaning the dearth of new specimens being collected because of legal restrictions and increased squeamishness about killing animals for any purpose other than food. Winker (2005: 969) argues that bird

[33] Walters (1994b) considers display the *least* important use of egg collections.

populations matter more than individual birds, and that taking a few specimens, except in the case of a few very endangered species, 'represents a practically insignificant (and non-additive) proportion of annual avian mortality'. These papers were written by Americans but most of the issues are equally relevant to the British situation, with Kiff (2005: 996) noting the 'myopic regulatory attitudes, particularly in the United Kingdom, that have led to the virtual cessation of scientifically based egg-collecting in recent decades…'. The dearth of recent specimens constitutes a contemporary difficulty with natural history specimens in general and birds' eggs in particular.

Natural history collections can be the subject of other types of research, not just scientific. They can have great value for social or cultural history, since '[n]atural history specimens and the collections they form are directly and inseparably connected with individual persons and their individual lives' (Walley 1997: 49). This PhD project is an example, and there are earlier precedents, including some derived from historical-geographical research undertaken at the University of Glasgow (Patchett 2010; Forsyth 2012). Also, these natural history collections can be valuable sources of creative inspiration and information, providing the basis for artistic work such as, within Scotland, by Kate Foster and Andrea Roe.[34]

Display and spatiality

It may be a surprising fact that the vast majority of museum holdings in the UK, over ninety percent, are not on public display in museums, and many never are. For egg collections, the figure is even higher: GM has much less than one percent of its eggs on display at any one time, and that is probably not unusual. Despite these statistics, display merits detailed discussion, for two main reasons. Firstly, along with holding collections, it is one of the fundamental functions of a museum, and a museum that did not display at all might be better termed a storage facility. Secondly, many of the questions surrounding display are central to the whole purpose of museums.

'Display' here is taken to mean placing objects on show, whether permanently (here taken to mean for the foreseeable future) or temporarily in an 'exhibition', although it covers a wider range of scenarios than simply 'objects in cabinets' in publicly accessible museum

[34] For the work of Roe and Foster, see http://www.andrea-roe.com/ and http://www.meansealevel.net/ respectively (accessed on 2 August 2016).

galleries. Indeed display might also embrace digital access, showing visitors museums stores, and other possibilities. Also, as Swinney notes (2011: 223-224):

> … the dichotomy between front of house and behind the scenes, between visible and other spaces, is not as fixed and rigid as might be assumed. Animal representations pass back and forth between these spaces, being prepared behind the scenes and possibly returning there for conservation or repair. … The behind-the-scenes spaces have their own visitors, albeit their visits are generally more sporadic and subject to tighter controls and scrutiny. … It would, therefore, be a mistake to consider only the front-of-house spaces of the museum as containing items that are on display.

Dedicated collections centres such as Glasgow Museums Resource Centre, where the public can take guided tours to see the collections not on full display, further blur the boundary.[35] In addition, many natural history objects in museums are stored in a 'display-ready' form, even if they are not on public display. For example, mounted animals may be part of a habitat diorama (see below for further discussion), and some birds' egg collections remain in the display cabinets filled by their original collectors.[36]

Questions of display are closely related to ones about the way in which meaning is generated or communicated by museums.[37] The spatial characteristics of museums play a significant role in this respect:

> … museums have their own spatial arrangements that are rarely accidental and which actively shape how their contents are received by visitors ... [In addition,] museums produce geographies of the world beyond their walls. What collections are put on show and how they are arranged and explained all shape visitors' understandings about the geographical organisation of the peoples, natures and places that are exhibited. (Naylor and Hill 2011: 64)

These internal and external geographies, '*in* and *of* the museum' respectively (*ibid.*), interact so that, for example, the arrangements of display can emphasise particular geographical aspects of the objects in that display. Museum displays and exhibitions can also be thought of as a form of *narrative*, and there are various 'ways in which the physical material of museums and galleries can be manipulated to generate narratives – to tell stories in space' (Macleod *et al.* 2012:1).

[35] Glasgow Museums Resource Centre will be discussed in more detail in chapters 3 and 7.
[36] In taxidermy, 'mounted' is the word used for 'stuffed'.
[37] As Jordanova (1989: 23, italics added) argues, however, '[t]he ways in which the contents of museums are presented lead to, *but do not fully determine*, what visitors experience and learn.'

Spatial aspects of the museum operate at various different scales to encapsulate meaning. At a large scale, the whole museum building and its architecture can imply different meanings for the collections inside, as can the, and the museum's relationship with its surroundings and the city or neighbourhood where it is sited. The internal layout of the museum also implies different meaning for the objects held. Forgan (1994) discusses how the rooms in nineteenth-century museums were often laid out in such a way as to reflect the taxonomic principles guiding the display of the collections, with each space logically connected to those at either side. To the educated eye, at least, the order of passing through the galleries could illustrate the order of the things displayed in them. Here, then, the geography of the building can play a central role in the knowledge intended to be transmitted both by and within it.

Within a particular museum room or exhibition space, the spatial ordering of displays can also have a major impact on both the meanings generated and the interpretation of the objects displayed within them. Till (2001) notes that spatial layout was an important component of a 1993 exhibition in Germany, shortly after reunification, which tackled national history and identity. The sections representing life in the former East Germany had a linear plan, whereas those representing West Germany were much more fractured, as a way of emphasising differences between life under the two different types of regime (authoritarian and democratic). Pearce (1992) discusses a Royal Ontario Museum study (1976) which found that the floor plan of an exhibition is crucial, given that most people tend to take the shortest route possible. Other important factors, identified by Peponis and Hesdin (1982), include the density of display units, the clarity of a gallery's structure and the extent to which the visitor is corralled into following a particular order of exhibits (or whether they are freer to create their own routes through the displays). These factors can combine to reflect a view of knowledge as already well-structured and understood, or instead as open to a wider number of different interpretations. Of course, a lack of structure can be accidental as well as deliberate. For example, Billinge (1993: 126) discusses the 1851 Great Exhibition as an extreme example of disorderly display, 'a bizarre and tasteless jumble of the world's most extravagant kitsch'.

At a smaller scale, meaning is woven into the spatial structure of individual displays. Firstly, there is the density of display: how many objects should the museum try to fit in to its displays? More plentiful displays allow more of a museum's collection to be shown, and may mean that the visitor is more likely to find something that captures their

imagination amid the objects on show. On the other hand, sheer weight of numbers could be confusing for the visitor, and a sparer selection of carefully chosen items could encourage close attention to each object. Perhaps there is a happy medium, with sufficient numbers to allow visitors to experience the material variety of objects, but not so many that they are overwhelmed by the sheer embarrassment of riches exhibited.

Another important question of natural history display is the extent to which objects should be shown as isolated specimens (singly, or alongside other specimens) or placed in a diorama or tableau to give environmental context to the objects.[38] If a number of specimens are shown together, comparison can readily be made between different specimens. For example, birds' eggs can easily be compared with each other in terms of size, shape, colour and surface texture. In a diorama or tableau, a number of natural history specimens are often presented together in a naturalistic setting as a 'habitat group', usually with the intention of illustrating a 'typical' environment in which they were originally found, out in the field.[39] Ostensibly, the viewer thus obtains a greater sense of their 'true' place in the world than is provided by isolated specimens, as well as arguably being more dramatic to look at.

The naturalistic power of the diorama also masks a high degree of artifice, however, as exposed by Haraway (1992). What may look like a 'typical' environment may actually rarely or never be found in the outside world, and groupings of animals in a diorama, say as nuclear families, may reflect the prejudices of the people (usually men) who created them. Thus dioramas embody a *politics* of display about which we should be mindful. Haraway (*ibid.*) also notes the absence of old or deformed animals in her examples (taken from the American Museum of Natural History). This points to a wider question of whether museums should display 'average' specimens, which may have blemishes and look fairly commonplace, archetypal examples as the 'best' of their kind, or perhaps particularly visually striking or unusual examples. These decisions will be shaped by the biases of the original collectors, and may be salient for egg collections, since visually striking or unusual eggs were particularly attractive to egg collectors (see Chapter 5) and so they may be disproportionately represented in museum collections.

[38] See the PhD thesis by Patchett (2010: Chapter 4) for a more detailed discussion of dioramas.
[39] See Wonders (1992) for a discussion of the historical development of dioramas from an emphasis on entertainment to education.

Competing priorities in display: meaning; materiality; education; entertainment; reflexivity

The preceding discussion indicates various ways in which museums generate meaning, and it should be clear that there is no 'value-free' mode of display which allows the objects to 'speak for themselves' free of any interpretation. With this caveat, there are different degrees to which museums explicitly promote particular meanings and interpretations of objects to visitors. The extent and type of labelling is important in establishing the balance between what might be termed 'meaning' and 'materiality'. The more explanatory content is provided with a display, arguably the more attention shifts from the material, physical properties of the objects on display, towards the meanings ascribed to them by the labels. In the nineteenth century, one school of thought even appeared to promote the labels to centre-stage, having the objects merely as their adjuncts, so that, in George Brown Goode's words (1901: 220), '[a]n efficient educational museum may be described as a collection of instructive labels, each illustrated by a well-selected specimen'. While this approach has never quite fully prevailed, the historical development of museums discussed above can be taken to mark the gradual ascendancy of meaning over materiality, with natural history specimens being assigned significance within increasingly complex taxonomic and evolutionary systems.

This emphasis on meaning over materiality has arguably continued to prevail until the present day, although some commentators now warn about the dangers of excessive contextual material. For example, Vergo (1989: 51) complains about 'the over-contextualised display: musty with documentation, laden with earnest didacticism, any occasion for private meditation drowned out by the whirr and clatter of the audiovisual programme'. More recently, there have hence been calls for a greater emphasis on the material reality of museum objects (e.g. Dudley 2010, 2012). For Pearce (2010: xiv), '[i]n essence, materiality is all we are and all we have', and to relegate its importance is to ignore the primacy of physical presence to our experiences. Dudley (2010) argues that, with a few exceptions, even the 'material turn' in anthropology has tended to concentrate on the social cultural significance of objects, at the expense of their physical qualities, which are important for two main reasons:

> The first, ontological point is that through our sensory experience of them objects have some potential for value and significance it their own right, whether or not we are privy to any information concerning their purpose or past. The second, more

> practical point is that creative materialist thinking about embodied and emotional engagements with objects can provide more powerful alternatives or additions to textual interpretation in enabling visitors to understand and empathize with the stories objects may represent. From both perspectives, engagements with material things should be the fundamental building block of the visitor's experience – yet so often, so unsatisfyingly, they are not. (*ibid.*: 4)

It has to be noted that any re-emphasis on materiality in museum display still mostly extends only so far as *looking* at objects, as opposed to, say, touching them.[40] This is certainly the case for any birds' egg displays, as the objects would be unlikely to last very long if handled by visitors. Alberti (2007: 386-7) notes that Victorian museums attempted to banish the other senses in favour of vision, which was taken to be the conduit of rationality, and museum display remains dominated by text and vision (although curators dealing with donations of roadkill, or addled birds' eggs, know that pungent smells have not been eradicated altogether in the museum).

Despite these restrictions on physical contact with museum objects, a renewed emphasis on materiality is possibly a unique selling point for museums. In today's world so much information is easily available online at the click of a button, but the virtual world cannot (at least yet) accurately simulate the experience of visiting real, material objects, in all their different shapes, colours, textures and sizes. As Stafford (1994: 279) argues, '[t]elepresence is no substitute for the wonder of material things experienced bodily and in common'.[41] Davies (2000) links these questions of display to the animal geographies discussed near the start of this chapter, comparing the prospect of virtual zoos with their more traditional counterparts. She argues that, while virtual zoos may avoid 'the manifest cruelty of animal incarceration' (*ibid.*: 258), in real zoos 'the corporeal presence of the animal acted as a reminder of their subjectivity and agency' (*ibid.*: 260), carrying an ethical charge which is largely lost in virtual display.[42]

Another tension that exists in museum display, and in the wider purpose of museums, is that between 'education' and 'entertainment', which has been in evidence since the growth

[40] There are exceptions, however. Researchers visiting museum collections may have opportunities to handle objects (Swinney 2011). More specifically at GM, learning programmes encourage children, to touch selected object as a way of engaging more closely with the collections, and the Open Museum (see Chapter 7) loans 'handling boxes' out to community groups, particularly to encourage reminiscence by elderly people.

[41] Stafford (*ibid.*) also bemoans the modern museum's privileging of text and interpretation over appreciation of the physical properties of objects, as just discussed.

[42] With live animals (but not for inanimate museum objects), this ethical charge is heightened by their ability to return the visitor's gaze (Davies 2000; see also Berger 1980).

in public access to museums noted above. On the one hand, there is a desire to educate the visitor, instilling new knowledge about the world via contemplation of the objects on display. On the other, there may be a wish to provoke a more visceral reaction: perhaps one of wonder, delight or even disgust. While these approaches are not necessarily mutually exclusive, and an effective way to educate people is by also entertaining them in some way (Vergo 1994), they have sometimes coexisted uneasily. Greenhalgh (1989: 84) notes that:

> By 1900 an awkward balance between entertainment and higher culture had more or less institutionalised itself into the fabric of English exhibition policy. Few would visit an exhibition unless entertainment was offered, and yet education had to be a prominent element if the event were to receive official patronage and achieve the necessary cultural standing.

Greenhalgh also argues that a notion of 'improving' audiences 'has largely remained at the philosophical core of museum outlook' in Britain ever since (*ibid.*: 89). At the same time, catching and holding the attention of visitors remains a concern. For example, Black devotes considerable space to both formal and informal learning, including sections such as 'Promoting relevance to users through finding a "content hook"' (Black 2012: 91).

Much of the above discussion has concerned decisions which museum curators and exhibition designers may face when constructing museum displays. By the time the public sees a display or exhibition, however, most of these decisions, and earlier processes both before and after the acquisition of objects by museums, have been made invisible: 'Exhibitions tend to be presented to the public rather as do scientific facts: as unequivocal statements rather than as the outcome of particular processes and contexts' (Macdonald 1998: 2). Over the past quarter-century or so, particularly through the 'New Museology' (Vergo 1989), there has been a range of voices calling for museums to acknowledge explicitly the status of display as an artificial, politically-charged and non-neutral activity, as opposed to the historical approach in which display has been treated as a *fait accompli*, with its underlying assumptions and rationales left unstated. Greenhalgh (1989: 95) bemoans the tendency in Britain to pretend to curatorial neutrality, whereas 'museums are an intensely political phenomenon and we should acknowledge this fact with panache and honesty'. Saumerez Smith (1989: 20) argues that:

> The best museum displays are often those which are most evidently self-conscious, heightening the spectator's awareness of the means of representation, involving the spectator in the process of display. (Saumerez Smith 1989: 20)

For example, a floridly dramatic diorama could be accompanied by an explanation that this type of display tactic was common in the period in which it was made.[43] Another level of self-reflexivity could involve curators explaining why they have selected the objects on display, as well as their particular mode of display (Vergo 1994). Of course, there is a limit to the amount of this type of explanation in which the visitor may be interested, and there is a danger of drowning objects and displays under excessive levels of interpretation, as discussed earlier.

Some commentators have brought the idea of self-reflexivity to bear on natural history museums, arguing that they are remnants of earlier eras and modes of thought, and that they should be presented as such. Bal (1992: 560) writes of the American Museum of Natural History that, as well as having the role implied by its name, 'it is necessarily also a museum of the museum, a preserve not for an endangered species but for an endangered self, a "metamuseum": the museal preservation of a project ruthlessly dated and belonging to an age long gone whose ideological goals have been subjected to extensive critique'. Similarly Yanni (1999: 161) argues that Victorian natural history museums should be preserved as historical records in their own right, since '[i]t is through the story of natural history, best seen in museums, that we can trace the different definitions of nature that led to our relationship with the natural world'. A counter-argument could be that natural history continues to evolve as a discipline, and that the museum should evolve along with it. Perhaps a compromise could be to preserve part of a museum as a period piece.

In concluding this section, museum display might be thought of as like an iceberg. In a literal sense, most museums can only display a small proportion of their total collections, so merely the tip is visible. Metaphorically too, what is ostensibly on display is only a fraction of the complex webs of materiality, meaning, knowledge and power that lie beneath the surface.

Conclusion

This chapter has outlined the different thematic concerns and theoretical foundations that underpin this thesis. In doing so it has considered birds'eggs under a number of different

[43] It is important to bear in mind, though, that it easier to comment on the display strategies of a bygone era than it is to be critical about one's own.

guises. As biological entities with a hybrid ontological status of the 'almost-animal' – of animal origin and potentially becoming an independent life, yet arguably not yet attaining the status of fully living thing – eggs form an interesting case for animal studies and animal geographies. Eggs are also objects of great beauty and perfect form, attributes which have inspred poets, artists and philosophers. Of course, birds' eggs have also been objects of desire and even obsession for collectors, and the wide-ranging literature on collecting provides many perspectives on themes such as psychological and psychoanalytical motivations, the anthropological and sociological roles of collecting, and geographical aspects, not just where objects come from but also their different treatment in different locations.

Birds' eggs have also been treated as objects of scientific study, namely specimens, which means that wide body of work on histories and geographies of science and natural history becomes relevant to understanding egg-collecting. In addition, specialist histories of ornithology and oology provide crucial contextual and more specific information for this thesis. Scholarly work on the different generic spaces of science pertaining to egg-collecting and collections – the field; the laboratory (represented by the collectors' home); formal collective spaces such as associations and publications; and the museum – provides a grounding for the structure of the empirical chapters of this thesis. In the case of the museum, with its numerous social and cultural as well as scientific roles, literature from museum studies has also been called upon to provide insights into themes such as the uses of collections and issues surrounding museum display. Having conducted this thematic review, the next chapter outlines the methodological approach for this thesis and the sources consulted.

Chapter 3. Archive, Collaboration and Practice: Methods and Sources

Introduction

This chapter sets out the methods and sources used in this project, encompassed by its overarching aims as set out in Chapter 1. A central aim has been to investigate the written and material traces of the egg collectors whose collections are held by Glasgow Museums (GM). I have also attempted to understand their historical context by researching the practices and preoccupations of British egg-collecting culture more generally, principally through research focusing on rare published sources. In addition, this project has involved my own practical experience of working with museum egg collections, and thereby seeking to understand the challenges that they present to curators and other museum staff. In doing so, I have also tried to gain insights into the organisational culture of GM. Throughout the study, spatial and geographical considerations have been of pivotal importance, both implicitly and explicitly, as explored more conceptually in the previous chapter. As discussed in Chapter 1, questions of difficulty form a central focus of this project and have been sought out throughout.

This chapter is structured as follows. I initially consider some recent discussions of methodological issues in historical geography, including its expansion beyond traditional ideas of archival research, usually by a lone scholar. I then introduce my collaboration with GM and give an overview of the museum egg collections and accompanying archival material, both of which were central to this project. Next, I justify my use of additional sources, including long out-of-print egg-collecting journals, before outlining the more practically-driven avenues of my research, such as egg-blowing and visiting field sites where collectors once roamed. I also outline further activities I carried out at GM, and my contacts with other organisations and individuals, before stating some chosen limits to my research.

Methodological concerns in historical geography

Historical geography has tended to take archival work as its main type of ‘fieldwork’,

excepting a venerable field-walking, map and survey strain of inquiry. Traditionally, historical geographers have not tended to question the basis of their own methods of working, or the status of the archive as a source of knowledge, with occasional exceptions (e.g. Baker and Billinge 1982). This situation has begun to change in recent years, in a number of ways of which Lorimer (2010) provides a useful overview. There has been increased recognition that archives, and historical researchers who spend time there, are not separate from the world but are part of it, and have their own histories and partialities that influence any archival work carried out. In particular, archives' contents are often a result of both deliberate actions and of happenstance, determining what is saved, stored, catalogued, retrieved and sometimes lost. Archives are also material manifestations of wider power relations in society (Withers 2002); in particular, records of the wealthy and powerful are more likely to exist in the first place, and to survive, than those of other groups in society. These types of imbalance are found to some extent in the GM egg collections and written archive.

Another recent trend in historical geography has also been an expansion of 'the archive' from official and published sources to a growing variety of other sources quarried for historical geography research. The different types of source, whether textual (Philo and McGeachan 2014), visual (Rose 2001; Schwartz and Ryan 2003; Edwards and Gilbert 2007), aural (H. Lorimer 2007) or material (DeSilvey 2007) may also interact and correspond in ways that shed new light on areas of research. In this spirit, a variety of different textual sources have been investigated in this project, from published journals and records of formal meetings, to the handwritten notes and data records of specific collectors. The collections of birds' eggs held at GM have also provided a hugely important material archive for this project. The materiality of written sources should also not be forgotten, and for most of the historical published sources consulted for this project I have used original, physical versions. Partly this approach was born of necessity, since many of them are rare, hard-to-locate and have not been digitised, but I also sought to appreciate the different material qualities and characteristics of these sources.

There has also been increased willingness among some historical geographers to embrace a variety of methods beyond archival research as traditionally understood, in order to illuminate and bring to life research topics. Lorimer's (2010) notion of 'make-do-methods' has proved fruitful, combining a variety of approaches, including different archival sources and other methods, each of which might be fragmentary when taken on its own, but which

combine into a much richer treatment of a research topic. For example, some researchers have attempted to re-enact past (and sometimes ongoing) practices in order to gain a deeper understanding of a topic, such as Patchett (2010) learning the art of taxidermy. Although legal and ethical controls prevented such a practice-based approach from being followed fully in the case of egg-collecting, some of its constituent practices such as egg-blowing (see below and Chapter 5) can still be repeated, and have been during the course of this project. Another development closely related to practice-based methods has been an interest in embodiment, which has included visiting the places where past events took place (e.g. DeSilvey 2007), in a geographically-determined form of research arguably re-invigorating older traditions of field-walking, mapping and surveying. Lorimer (2010: 257) provides a rationale for this type of research:

> Spending time where others did so in the past might forge new kinds of connection and throw out new leads; even perhaps attempting to shadow, in practice, just a little of what was once laboured over or enjoyed at leisure …

As discussed below, in the course of this project I have visited some of the places where egg collectors carried out their activities, and many more which were similar, to gain a feel, for their own geographical fields of endeavour.

Also relevant has been recent interest in 'participatory historical geography' (DeLyser 2014: 93), a move seeking to involve special interest communities and other groups of like-minded enthusiasts in carrying out historical research about their subject of interest (Bressey 2014; Cameron 2014; Geoghegan 2014). Given the illegal and pariah status of egg-collecting in the present-day (carried out by only a few individuals who shun publicity), it was not appropriate to pursue this approach directly in the project. Instead, I have had to restrict my activities to a 'historical geography of participation' rather than enlist others in 'participatory historical geography', as understood in this sense. That is, I have carried out research on one particular participatory activity – egg-collecting – but I have not enlisted egg-collectors to participate in carrying out this research. In another important sense, however, my research has been highly participatory, as an essential component of the project has been the partnership with GM. As detailed below, I have participated in museum activities, including taking receipt of a newly-donated egg collection, and culminating in the curation of a display of birds' eggs. These activities have provided another central strand of this project, along with the archival research.

Collaboration with GM

This PhD project has been undertaken as a Collaborative Doctoral Award (CDA) funded by the Arts and Humanities Research Council (AHRC), with the University of Glasgow and GM as the partner institutions. My main base for analysis and writing has been the School of Geographical and Earth Sciences at the University, where two of my supervisors, Hayden Lorimer and Chris Philo, are academic staff. In GM, my supervisors are Richard Sutcliffe, Research Manager for Natural Sciences, and Helen Watkins, Research Manager for History (henceforth they will be simply named 'Richard' and 'Helen' in this thesis).[44] Richard has been my main contact at GM, as he has day-to-day involvement with the natural history collections, including the birds' eggs, and has undertaken some earlier unpublished research into the GM collections and collectors which he has generously shared with me. I also saw Helen frequently, for meetings on specific topics or more informally, as she and Richard are both based in the same office.

Collaborative research between universities and other institutions is a growing phenomenon, reflected in the growth initially of AHRC CDAs from their inception in 2005 to a peak of 77 in 2011 (Driver 2012; AHRC 2015) and more recently by their successors, Collaborative Doctoral Partnerships and Doctoral Training Partnerships. In certain cohorts over ten per cent of these projects have involved university geography departments (or schools), with historical geography research featuring prominently. An Historical Geography Research Group edited monograph on 'Collaborative Geographies' (Craggs *et al* 2013) reflects the growing importance of collaboration as an approach within the discipline.[45] The experiences of other CDA students, and their supervisors, recounted in this publication have provided helpful points of reference for my own project.

The University of Glasgow and GM have been involved together in seven CDAs. These projects have been part of a wider track record of partnerships between the two organisations, formalised by a Collaborative Framework Agreement in 2010. Although the previous CDA projects did not involve Glasgow Geography, there has been fruitful collaboration between GM and Glasgow geographers in recent years. For example, in the course of her PhD on taxidermy, Merle Patchett (2010) visited the GM collections on a

[44] I worked so closely with these two individuals that it would feel wrong for me to refer to them only by their surnames in what follows. Other contacts will be referred to by their surnames, except in table 3.1 and in places in Chapter 7.

[45] The Historical Geography Research Group is a research group of the Royal Geographical Society (with the Institute of British Geographers).

number of occasions, liaising with Richard. In addition, Helen has a background in human geography research, having completed her PhD on *Fridge space: journeys of the domestic refrigerator* (Watkins 2008) from the University of British Columbia. This collective experience means that GM as an institution is familiar with collaborative research, and my supervisors had experience of working with PhD researchers in general and academic geographers in particular (or in the case of Helen, being one herself). These factors undoubtedly prepared the ground for my collaboration with GM and reduced the potential for misunderstandings and other difficulties.

Introduction to GM and GMRC

GM is the largest civic museum organisation in the UK outside London and includes nine main museums, including the Burrell Collection, the Gallery of Modern Art, the Riverside Museum of Transport and Travel, and Kelvingrove Art Gallery and Museum (henceforth 'Kelvingrove Museum'). It is part of Glasgow Life, an ALEO (arms-length external organisation) of Glasgow City Council which also runs other cultural facilities in Glasgow such as libraries, sports facilities and arts events. The museum holdings of GM are ultimately therefore owned by the people of Glasgow, a fact which is significant for questions of access and the activities of GM.[46]

My work with GM was mainly located at Glasgow Museums Resource Centre (GMRC), which is on an industrial estate in Nitshill, a suburb on the outskirts of Glasgow (Figure 3.1). This purpose-built facility houses a large proportion of the vast majority of objects in the GM collections not on public display, including the egg collections.[47] GMRC opened in two phases, in 2003 and 2009 respectively, and cost approximately £20m, funded by Glasgow City Council and the Heritage Lottery Fund. Since its completion, GM:

> … now have 15,000m^2 of bespoke, climate controlled storage for the vast majority of our 1.4 million objects. A suite of conservation workshops were also created that allow us to conserve the tiniest natural history specimen to a massive train locomotive and tender. (James 2013: 34)

[46] As a whole, the GM collections are the biggest asset owned by the city (James 2013).

[47] Prior to the late 1990s the eggs were kept in the 'Egg Store' in the basement of Kelvingrove Museum, from where they were moved temporarily across Argyle Street to another store at the old Museum of Transport, before being decanted to GMRC in 2009. Kelvin Hall is currently being repurposed as a cultural and sporting centre, including further publicly accessibly museum storage for GM (http://www.glasgowlife.org.uk/museums/kelvin-hall/about/Pages/default.aspx, accessed on 25 July 2016).

In addition, GMRC houses the GM collections records, library and archive; some departmental offices; and a special 'Research Room' where any member of the public can, by arrangement, view objects from the stores. There are also other learning and activity rooms used by school groups and for special events; workshops of various kinds where, for example, taxidermy specimens are revivified and display mounts are built; and a freezer where newly acquired or transferred objects containing organic material are placed upon arrival, to kill any pests that they might be harbouring. The museum holdings at GMRC are housed in large storerooms called 'pods', each holding a different area of the collections, such as world cultures, transport and fine art. Most of the egg collections are held in Pod 6 along with other natural history specimens, such as animal skeletons and GM's internationally-renowned mollusc shell collections. A few eggs are held in Pod 5, along with taxidermy, while other natural history collections such as entomology and botany are in Pod 2. In accommodating all these different functions of collections management, GMRC has a rather labyrinthine layout, which makes orientation difficult even after a number of visits.

Figure 3.1 GMRC on an unusually sunny day.
(© CSG CIC Glasgow Museums Collection)

My visits to GMRC were made on an *ad hoc* basis, approximately weekly in some periods but averaging out at around once a fortnight in the second year of study, and more sporadically at other stages of the project. This allowed other strands of research (such as investigating other archival sources) to be pursued concurrently, rather than my being 'embedded' in the museum for a period at the expense of other activities – an approach that brings its own advantages and disadvantages (Evans 2013; Fenner 2013). In choosing this approach I was fortunate that both of the key sites of my PhD partner institutions were only a few miles apart in the same city, rather than entailing lengthy journeys to one or the other. Visits to GMRC involved a number of different activities, and as such it has acted as

a repository (both written and object-centred) for archival work, but also as a field site for practical museum work carried out in the course of the project, as I will consider further on in this chapter. I also visited other GM sites more occasionally, for specific learning purposes.

Access to GMRC is closely controlled. All staff and visitors must sign in, and beyond the entrance hall many doors cannot be opened without pass cards, which are issued only to specific staff groups, as a security measure to prevent free access into the stores areas. On each visit, I was met by Richard (or occasionally another member of staff) and we would wend our way through the building to start the day in the staff office where Richard, Helen and other members of the team have their desks. The most direct route was along a corridor past workshops where natural history specimens and other objects are conserved, and where display structures (such as mounts and panels) are built from scratch, up some stairs to the upper floor where the pods are located. Walking past Pod 6, which houses most of the egg collections, we would also pass some more workshops such as those for picture framing and paper conservation, to reach the team office.

Most of the archival material (discussed below) was temporarily kept in a cardboard box in the office, so I could investigate it while Richard was working. We would also often go into Pod 6 to work together with the egg collections themselves. They form a material archive: physical evidence of the practice of egg-collecting over the last 150 years. It was important to study the eggs fairly frequently (and to handle them occasionally), to maintain focus on them as material objects, especially when transcribing written archival material, when it can be all too easy to lose sight of what was actually prompting the collectors' activities in the first place.

Introduction to the GM egg collections

The GM birds' eggs form a central focus of this thesis. They are estimated as numbering over 30,000, although they have never been counted exactly. The overall collection has been built up from a number of smaller collections donated to GM at different times by various individuals, either by the collectors themselves or their families; it is a collection of collections. Some of these collections number only a few eggs, whereas others contain thousands. The main individual collections in terms of size are the following, listed (using their GM identification numbers) in order of acquisition by GM, as denoted by their

Registration Numbers. The information has mainly been taken from GM accessions records, along with unpublished biographical research previously carried out by Richard and Alison Sutcliffe.

1912.87

Archibald Hamilton **Cochrane.** Nephew of the Tenth Earl of Dundonald. Cochrane's collection is noteworthy for containing some of the oldest eggs in the GM collections, originally taken around 1850 from Eastern Europe, including Hungary. There are approximately 250 clutches, donated in 1912 by his nephew.[48]

Z.1954.94

J.M. Douglas **Mackenzie**. Mackenzie (1888/89-1974) spent 20 years in the Imperial Forest Service, stationed in Burma, before taking over a 400 acre estate at Tullach Ard in Perthshire in 1930. He later lived in St Andrews. His collection, part of which was also donated to the Royal Scottish Museum (now National Museums Scotland), contains eggs that he collected from the Burma-India border, and many other eggs from Britain and around the world that he purchased from dealers or other collectors. The collection of around 1,800-2,200 eggs was donated to GM in 1954.

Z.1959.137

Myatt. Collection of around 2000 eggs was sold, to GM by a Mrs Hughes in 1959 for £4 10s. The accessions records note that the eggs were collected before 1914 by a Mr Myatt, mainly from Inverness-shire.

Z.1967.66

Hugh Corsar **Arbuthnott**. Arbuthnott (1860-1915) was a descendant of John, 8th Viscount of Arbuthnott. Born in India, he moved to Harrogate in Yorkshire, graduated as a medical doctor and was registered as a civil engineer. The eggs were mostly taken in northern England at the start of the twentieth century by Arbuthnott or companions, who sometimes included his children. He also obtained a few eggs (including some from overseas) via other collectors. Arbuthnott's collection (listed in the GM accessions book as being 'many' in number) was donated to GM in 1967 by his son Robert, Lord-Lieutenant of Dunbartonshire, who lived at Rhu near Helensburgh.

[48] Cochrane's donated collection also included numerous mounted birds. Some other individual collections (e.g. Lumsden) donated to GM consisted mainly of mounted birds, with just a few eggs.

Z.1973.133

Peter **Hay**. Hay grew up in Ayrshire during the 1940s except during term-time, when he boarded at Uppingham School in Rutland, and he collected in both areas. He knew Donald Cross (see below), who gave him some clutches and invited him to Vementry in 1952. Later he became an estate worker in Sutherland and retired in Inverness. The collection comprises approximately 1,500 eggs, donated by Hay in 1973.

Z.1974.70

Donald **Cross**. Cross (1900-1971) was born in Edinburgh and later joined the army, spending time in Kent and India before becoming a farmer at Otterden, near Maybole in Ayrshire. His collection was mostly self-taken between the 1910s and 1950s from various locations in Scotland, including Vementry in Shetland, where he had a second home. The collection of approximately 3,680 eggs, mostly with good data, was donated in 1974 by Cross's widow.

Z.1983.229

'Hensol'. This collection of just over 300 eggs is named after the large house near Mossdale, Kirkcudbrightshire, home to Sir Nigel Henderson, a high-ranking Royal Navy officer who donated the collection in 1983.[49] The GM accessions catalogue summarises the collection's provenance thus:

> Collection founded by Miss Helen McDowall of Logan, Wigtownshire (b 1872) – a keen water colour artist & naturalist. She married Captain Cunninghame in 1919. He was a keen naturalist & E. African big game hunter & added exotic specimens to collection [sic]. He owned 'Hensol' where eggs were housed from 1919-1983. Mrs Cunninghame was widowed in 1925 & remarried. She died in 1959 as the Dowager Marchioness of Ailsa. Egg collection was left to the Henderson family in 1959. Collected from 'Hensol' 8/11/83 by F.R.W and R.S.[50]

Z.1995.20

Ian **Robertson**. The Robertson collection of approximately 1,000 eggs was donated to GM in 1995 by E.S. Robertson. A letter to Richard explains that:

> This is the collection of the late Mr. Ian Robertson of Glasgow who had a keen interest in the birds of Scotland for over 70 years. He and his brother Sam learned a great deal from their father, Mr. John Robertson who was a well-known

[49] The donor requested that the collection be called the 'Hensol Collection'.
[50] This level of detail is rare for other entries in the GM accessions catalogues.

> West of Scotland naturalist and contributed weekly items for many years to a Glasgow newspaper.
>
> After their fathers [*sic*] death the two brothers pursued their interest together but on their retirement joined with some other enthusiasts to form a group called the Merganser Club in Clarkston and spent 20 years enjoying outings near and far in Scotland with these congenial companions.
>
> Ornithology was a life long interest which never lost its fascination and the pleasure of adding to his very extensive knowledge of the birds of his native land remained with him to the end.

DB.10777[51]

William **Crowther**. The collection of Mr Crowther contains roughly 1,000 eggs, and was donated by his daughter in 2012. The eggs are beautifully presented in custom-made cabinets, but unfortunately, as with many other donations, there is no accompanying data. Mr Crowther was also a member of the Merganser Club that included the Robertson brothers, and although most of the eggs in the collection were self-collected, some were given to him by friends, which may have included the Robertsons (personal communication between Richard Sutcliffe and Miss Crowther).

As well as the large collections listed above, there are certain smaller donations worthy of mention. GM holds a few eggs taken in Patagonia by John MacNaught **Campbell** around 1869-71.[52] He was the son of a Glasgow shipowner, on whose vessels he made numerous voyages to South America (*Glasgow Herald* 1924). Later he was a curator at Kelvingrove House and its successor, the new Kelvingrove Art Gallery and Museum, between 1876 and 1922. From the southern continent, GM also has twenty-two eggs (mainly of penguins) from William Spiers **Bruce**'s Scottish Antarctic Expedition of 1902-04, donated in 1950 by the Royal Scottish Museum (now National Museums Scotland). GM also has a number of eggs collected by L.R.W. **Loyd**, a collector active in the 1920s and 1930s, who was a member of the British Oological Association and who wrote a number of articles (e.g. Loyd 1923, 1924a) and a short book arguing against proposed legislation to prohibit egg-collecting (Loyd 1924b).

Most recently, GM took receipt of the **Liddell** collection, Z.2014.18. Keith Liddell, a H.M.

[51] This collection has not yet been officially accessioned into the collection, so it currently only has a 'day-book number' (explained in Chapter 7).

[52] Douglas Russell of the Natural History Museum (see below) has expressed particular interest in these eggs, as specimens of this era from South America are rare in British collections (museum correspondence with Richard Sutcliffe).

Prison Officer, was convicted in 2013 of trading in birds' eggs and attempting to amass his own collection. These 2,307 eggs had been confiscated from Liddell's Inverness home upon his arrest in 2009, and were being held at Fort Augustus Police Station. I accompanied GM staff on the mission to take receipt of this collection in 2014, and the Liddell collection is central to my empirical chapter on the museum (Chapter 7).

The layout of the GM egg collections

Most of the GM egg collections are held in Pod 6 of GMRC. Like all the other sixteen pods, it is roughly rectangular, with a minimal colour scheme and pipes running along the ceiling. The egg collections are to be found in both parts of the pod. In the front half, nearer the two entrance doors, some of the large individual collections (Cross, Arbuthnott and Myatt) are still in their original cabinets, along with a smaller cabinet from a collector named Mitchell. Various other material has found a temporary home in this part of the pod, such as entomology cabinets, geological material and marine invertebrate specimens. The back half of Pod 6 is slightly more ordered. On one side are vertebrate skeletons and unmounted heads and horns, and on the other sit the molluscs, arachnids and echinoderms, bird and other vertebrate skins, and another cabinet of the Myatt collection. The majority of the GM egg collections are held in the middle row of nine museum cabinets, five large and four slightly smaller, each with double doors on two levels. Each cabinet is therefore divided into four 'cupboards', each further subdivided into trays containing eggs or boxes of eggs. Of the 36 cupboards in total, the first 22 contain the 'main collection' of eggs, which is an amalgamation of individual collections, and is the ultimate destination of all egg collections acquired by GM unless they are deliberately kept separate. The main collection is ordered systematically by species according to the Peters' *Check-list of the Birds of the World*, compiled in 16 volumes between 1931 and 1987 (e.g. Peters 1931). The ordering starts with ostriches and rheas, and ends with crows and other corvids. Some British bird families and species are particularly well represented, such as guillemots (popular with collectors for their variety) and the corvids. The remaining cupboards in the row contain the Liddell collection (discussed below), the Robertson collection and an assortment of smaller collections.

Figure 3.2 Pod 6 at GMRC.
(© CSG CIC Glasgow Museums Collection)

Figure 3.3 Richard Sutcliffe and the row of cabinets housing the main egg collection at GMRC.
(© CSG CIC Glasgow Museums Collection).

To complete a survey of the remaining egg holdings, on the back wall of Pod 6 the Crowther egg collection nestles in its original cabinets among other collections of primate skeletons, crustacea, corals and protozoa: a diverse bunch, in evolutionary and taxonomic terms. A small collection in a curved glass display case discussed in Chapter 5, donated in 2012 by Lorraine Miller, also sits nearby. A small number of eggs are also held in Pod 5,

which mainly houses taxidermy specimens. Mackenzie's overseas collections sit on a set of shelves in glass covered boxes. This pod also includes dioramas by Charles Kirk (1872-1922), a noted Glasgow taxidermist, many of which contain eggs in a nest along with mounted parent birds, in strikingly realistic simulations of their original habitats.[53] Finally, as resident Curator and Research Manager, Richard Sutcliffe is an essential component of the collections. After studying Geology at Aberdeen University and following a short stint at the city museum there, Richard started at GM in 1979, so he has been working with the collections for a long time. Without his knowledge and guidance, this project would barely have been possible.

Figure 3.4 Diorama in Pod 5 of GMRC: coot nest, including hatched chick, by Charles Kirk. (© CSG CIC Glasgow Museums Collection).

Research on the written archive of oology

The written archive at GM

As well as the birds' eggs themselves, GM has a limited amount of written and printed archival material accompanying the collections. Some of the material was donated to the museum along with individual egg collections, and includes some documents produced by the original collectors, including field notebooks and listings of collections held. There are also a few notes by donors of collections, usually relatives of the individual collectors. In

[53] Kirk's works, business and dioramas are discussed in Patchett (2010: Chapter 4).

addition, there are numerous pieces of GM documentation, plus a few items from other museums, including information about Rutherglen Museum's collections (donated to GM when that museum was shut) and a thick printout of the eggs and skins at the Booth Museum in Brighton. Finally, there are a few photocopied articles about egg-collecting, including newspaper reports of raids on collectors.[54] The surviving archive suggests happenstance more than any systematic archival practices.

The GM written material is mostly kept in a cardboard box (for an Aiwa midi hi-fi system of 1990s vintage, illustrated in Figure 3.5), which has been kept in the Research and Curatorial team office during the course of this project, but eventually will be returned to the collections records housed in the Archive block at GMRC. Despite the archival material not being extensive in total size, transcribing each document still involved a substantial investment of time, so a selective approach was taken to the merits of each item, based on its likely value for the project as assessed by myself and Richard. Appendix 3 gives a list of all items found in the archive box, along with the decisions made about whether or not to transcribe each item.[55] As can be seen from the list, the GM written archive contains a medley (perhaps hodgepodge is more accurate) of different sources and items, with some collectors (e.g. Cross, Hay, Arbuthnott and Mackenzie) well represented, but many others barely covered at all. There is also a field notebook donated along with the Roberston collection, but the dates indicate that it does not tie up with the eggs donated.

Figure 3.5 The box of archival material relating to the egg collections held at GMRC. (© CSG CIC Glasgow Museums Collection)

[54] These reports do not refer directly to any of the GM collectors.
[55] In addition, many of the eggs also carry written inscriptions added by collectors, some of which tie back to other archival material held at GM. Time precluded detailed investigation of the linkages between egg inscriptions and other documentation, but the topic of egg inscriptions is discussed in Chapter 5.

I transcribed most of the primary field notes, including all of those written by Arbuthnott, Hay and Robertson. Richard had already transcribed the notebook of data relating to Cross's main collection; of the three notebooks detailing Cross's later bird*watching* (as opposed to collecting) activities, I transcribed one fully, one partially and left the third un-transcribed. I also fully transcribed the data cards relating to the Liddell collection. The Mackenzie files are very convoluted in compilation, including many glued-in and overlapping pieces of paper detailing clutches bought from elsewhere, numerous hard-to-decipher measurements and figures, and even a conversion table from inches to millimetres. It was decided that, apart from a few selected pages, the difficulty of transcribing these files was beyond the province of the project. Most of the other files and other items on the archive box were considered of limited historical value, and were not transcribed. They have, however, been called upon where relevant.

Additional information about the main GM collections comes from other sources. Firstly, GM accessions records, held at GMRC, contain records of when each individual egg collection was acquired by the museum, and from whom. Some records give fairly detailed descriptions of each item, but most do not (see Chapter 7). Museum catalogues also exist for some (but not all) collections, but again the level of detail varies widely across different collections, and the catalogues have not been called upon as a significant data source for this thesis. Another very helpful supplementary source is provided by the biographical research that Richard and his wife Alison Sutcliffe have previously carried out into Cross, Arbuthnott, Campbell and Mackenzie, printed records of which are in the GMRC archival box.[56] The Sutcliffes gleaned information from sources such as birth, marriage and death certificates, census records and, in the case of Cross, his grandson and his old school in Edinburgh. There is also a small amount of additional information about Mackenzie discussed in correspondence in 2008 between Richard and Douglas Russell of the Natural History Museum. There is little or no information about the lives of the other collectors, except the notes and letters quoted above.

Published sources

The GM archive has provided crucial material for parts of this thesis, and has been called upon as evidence as much as possible, so that a GM thread runs through all the empirical

[56] Richard gave a presentation at the 2009 GM Annual Research Conference about the Cross collection and its conservation, partly based upon this research.

chapters in the thesis, thicker in places, thinner elsewhere. However, it is very patchy, covering a small portion of the field activities of a few collectors who were active at different times. It does not provide a great deal of information about historical egg-collecting more generally, and this topic has not been systematically covered by other scholars. I found that I needed to augment the GM material by conducting a wider historical investigation into British egg-collecting. Limbert (2003: 93-94) has an appendix on 'Specialist oological periodicals published in Britain', and these publications presented an opportunity to find out more about the practice and ethos of British egg-collecting in the periods that they were published. There are precedents in historical geography for this approach, of using specialist publications to scrutinise particular interest communities. Examples (all from the *Journal of Historical Geography*) include Philo (1987) on the *Asylum Journal* as a space for debates about the nature and appropriate treatment of madness in Victorian England; Cant (2006) on rival publications and organisations in the world of mid twentieth-century British caving; and Bressey (2012) on the role of the journals *Anti-Caste* and *Fraternity* in fighting racial inequality in the 1880s.

When studying these published oological sources, I was chiefly looking out for material that brought to light the practices of egg-collecting and collectors, whether collecting eggs from 'the field' or adding eggs to their collections at home. I was less concerned with minutiae about eggs themselves, or the content of more scientifically involved articles, although *who* wrote them, and questions about *why* they did so, were still of interest. In addition, I was particularly interested in any discussions or debates that touched on ethical or otherwise difficult matters. Overall, I was concentrating on aspects of practical and ethical difficulty surrounding egg-collecting, as well as discerning what contributed to the identity of 'the oologist' as a figure revealed and constructed in the published record of oology. Thus, I was not simply gathering materials, but filtering and processing them for my specific purposes.

When looking at these published oological sources, my chief concern was therefore how specialist interest in oology was recounted within their pages, rather than a principal focus on matters of these periodicals' 'production, distribution and consumption' (Ogborn and Withers 2010: 10). Nevertheless, the 'spaces of the text', such as the journal format, the availability and location of authors, and the intended audience, carry certain conventions and constraints which affect 'the spaces in the text' (Saunders 2010: 437), in terms of what can be contained within its pages. These constraints differ from alternative sources of

disseminating and circulating information (such as books, newspapers or holding talks); specifically, '[p]eriodicals ... are by nature more open and multi-vocal than books' (Shuttleworth and Cantor 2004: 7), qualities which can render them a particularly varied source of information and debate. I found this observation to be true of one periodical in particular.

The Oologists' Record

The most important British source of published oological writing was *The Oologists' Record* (henceforth *OR*), a quarterly journal which ran from 1921 to 1969. An initial investigation of a few issues revealed a huge amount of fascinating and rich material, so I decided to undertake a more systematic survey of the serial, treating it as a primary archival source. I reviewed every edition of the journal, a total of 3,274 pages in 171 editions across 43 volumes, noting down every article and making notes on particular points of interest. I did not read every article in full but did look at a level of detail to assess sufficiently whether each was worthy of detailed study. These investigations into the worlds of *OR* provided essential source material for my project; and, as far as I am aware, it has not been the subject of detailed investigation previously, except for my own paper based on the research for this thesis (Cole 2016).

Most of the research on *OR* was carried out at the National Library of Scotland (NLS) in Edinburgh, although the first three years' publications were available online via the Biodiversity Heritage Library.[57] Physical copies are also owned by the Scottish Ornithologists' Club (SOC), who are missing the last few years, and by David Clugston (both to be discussed below). They both allowed me to photograph copies for personal research purposes, a practice which is prohibited by the NLS. The research at the NLS was carried out over the course of around six months in 2013-14, approximately once a week. Travelling from Glasgow meant that these sessions had to be intensive, helping me to feel a deep immersion in the material. Also, handling physical copies of the journal allowed, I believe, for a fuller engagement with *OR* than reading the contents online. That there was so much interesting material (albeit along with less thrilling items such as lists of egg measurements) helped to maintain concentration for long stretches. Although mercifully I did not, like Michelet, become ill through breathing in dust in the archive (Steedman 2001), I would emerge into the Edinburgh evening with a slightly dazed feeling after so

[57] See http://www.biodiversitylibrary.org/ (accessed on 27 July 2016).

many hours spent at an NLS desk.

Having completed detailed note-taking on *OR*, I tabulated all of its constituent articles for authors, geographical area covered (if specific), and type and relevance to different aspects of egg-collecting, such as regional surveys and expeditions, individual bird species types, and aspects of oological practice. I noted whether an article touched on ethical matters, and noted other collectors who were mentioned by an author. This organisational technique then helped me to pull together the material thematically for discussion in the thesis and also for Cole 2016). I consider this work to be indispensable to my project, giving me a much wider view of British egg-collecting – albeit from a partisan source with pronounced rhetorical and stylistic conventions – than I could glean from the GM archive alone.

Bird Land

OR was a publication aimed at adult egg collectors. In terms of numbers, however, adult collectors were probably eclipsed by 'schoolboy' collectors, as egg-collecting was a very popular hobby among children, and until well into the twentieth century was widely encouraged as a healthy outdoor pastime. Time limitations precluded an investigation into articles about egg-collecting in general children's periodicals, although they undoubtedly existed (e.g Milton 2008). There was, however, a late contribution to the oological press in the form of *Bird Land*, a magazine aimed at the young collector. *Bird Land* was published (at first monthly before becoming quarterly) between 1946 and 1953, just before egg-collecting became largely illegal in Britain (see Introduction and Appendix). Surviving copies of this publication are very rare, and not even held by the NLS or the SOC, but Clugston (see below) has a full set to which he kindly allowed me access. Every edition and article of *Bird Land* was reviewed to gain a feel for the contents and common preoccupations, but they were not systematically recorded and analysed to the same extent as with my research on *OR*.

Other oological and ornithological periodicals

A few other periodicals were published in the early twentieth century, mostly for shorter periods than was *OR*. *The Oologists' Exchange and Mart* (1919-1927) and its successor, *The Quarterly Circular of the Oologists' Correspondence Club* (1928-1936) were mainly aimed at collectors seeking to buy, sell or exchange eggs or information with each other.

The *Bulletin of the British Oological Association* was principally a write-up of the events and discussions at the meetings of its namesake organisation, which had its first meeting in 1923. As such, this publication was my chief source for investigating the institutional space of the Association. These publications are extremely rare; Clugston again provided me with access to his copies. Some significant events in the history of British oology took place at these events, and they were followed up in detail. Lists of attendees also proved valuable. A more comprehensive survey of the contents was not carried out, and these sources were only consulted to confirm broad themes or to illuminate specific events.

The *Bulletin of the British Oological Association* became the *Bulletin of the Jourdain Society* from 1946, at first continuing much in the same vein as its predecessor organisation. It continued to be published until very recently. Time precluded a detailed survey of its contents, especially in later years, which also lay outside the scope of this project. More general ornithological journals such as *The Ibis* (produced by the British Ornithologists' Union) were only consulted for specific articles, as were publications by the RSPB and other opponents of egg-collecting.

Other sources of historical information

As well as periodicals, some specialist books relating to oology were also consulted. Technical instruction books provided information about the practices of egg-collecting. Some of these are held in the GMRC library, mainly donated by one of the taxidermists who used to work at GM. Most are principally concerned with taxidermy, with short sections on egg-blowing and preservation. When studying debates about egg-collecting (discussed in Chapter 6), Parker's *Ethics of Egg-Collecting* (1935) was a very useful historical source. Memoires and reprinted diaries of collectors, such as those published by Peregrine Books, were referred to on an *ad hoc* basis. The digests of collector biographies by Cole and Trobe (2000, 2011) have been mined for their copious information about many significant twentieth-century collectors' activities, and occasionally too their wider lives and character traits.

While not being used directly as source material in this thesis, field guides on birds' eggs (e.g. Kearton 1896; Coward 1950; Thomson 1942; Evans 1954; Chambers 1958; Fitter 1968; Harrison 1985; Vesey-Fitzgerald n.d.) have provided evidence of the historical popularity of egg-collecting in Britain, and also their continuing appeal as subject matter.

The illustrations in these books form a major part of their content, varying widely in style and quality. These contrasts and trends in pictorial representation would provide worthy subject matter for further investigation, but space precludes further discussion in this thesis.[58] Items of ephemera such as the sets of cigarette cards produced by Ogdens (1923) also confirmed the popularity of egg-collecting in early twentieth-century Britain.

Recovering past oological practices

As well as researching the activities of the GM collectors by consulting the archival record, I wanted, as far as possible, to gain first-hand experience of aspects of egg-collecting practice. Going out and collecting eggs from the wild was not appropriate, for legal and ethical reasons, nor did I have any desire to do so. However, certain aspects of egg-collecting culture could be repeated without fear of punishment or pangs of conscience. Firstly, I visited some of the types of locations from which the GM collectors obtained eggs. Most of these places I would have visited anyway, since I enjoy walking, but having a new-found awareness of collecting and birdwatching opened my eyes to the bird life that is still plentiful in the quieter parts of Scotland. Although not an egg collector, I can perhaps begin to understand the collector's mentality. I am particularly fascinated by waterfalls (Cole 2015) and have a long-term mission to visit every waterfall in Scotland. As such, I can appreciate the thrill of finding something new to add to one's collection, albeit in my case an intangible experience rather than a physical clutch of eggs, as well as the revisiting of old favourites, whether waterfalls or bird species. In addition, I also enjoy visiting the many different varieties of landscape in northern Britain. In doing so, I have been to many of the same specific places and types of place that the GM egg collectors visited, and when doing so I tried to keep the collectors in mind, especially when I heard birdsong nearby or spotted a bird flying overhead, thereby carry out outdoor 'fieldwork' in addition to more traditional archival research of written sources (Lorimer 2010).

I also carried out a more specific visit to the area where Donald Cross spent the spring of 1957, and a few subsequent years, watching golden eagle nests in southern Ayrshire. Cross had given up egg-collecting by this point and was enlisted to help guard the nests from collectors and other visitors who might disturb them, such as photographers. The cliffs

[58] For a particularly beautiful series of illustrations of American nests and eggs, see Kiser (2012), which reproduces the work of Genevieve Jones (1847-1879).

where the eagles nest are on outliers of Mullwarchar, said to be the remotest hill in southern Scotland, and I paid a visit there, negotiating the unforgiving terrain that guarded the nesting sites. Many other walks have involved me trudging through bogs, climbing over barbed wire fences and generally ending up somewhat dishevelled (and, more rarely, being accosted by an irate landowner), so I can appreciate the perverse enjoyment that egg collectors, writing in *OR* and elsewhere, derived from the hardships endured while out collecting.

As well as attempting to recover some of the field experiences of collectors, I also had the opportunity to try one of the key skills required of a collector, namely egg-blowing: emptying out eggs by drilling a hole or holes in the shell and forcing out the contents. Lorimer (2007: 58) provides a rationale for seeking to recover this type of practice:

> The physical experience of being a beginner can give to the learning body an unfamiliar feel. Following precise instructions on how-to-do the small things that make up an outdoor pursuit (or indoor craft) allow us to be unexpectedly different, sometimes shaped by outmoded or marginalized expressions of popular culture. You might even consider it a creative exercise in re-acquaintance, where geographical imaginations and "known" landscapes are thickened up by kinetics.

GM has a few egg-blowing tools donated with some collections, and I used them to blow some hen's eggs bought from a local discount supermarket on my way to GMRC.[59] One set of tools came in a box with instructions on the lid, which I tried to follow. I blew two eggs, one using the older two-hole methods, and another with a single hole, which was the approach favoured by most serious collectors. Photographs capturing my efforts can be seen in Chapter 5.[60] These attempts at re-enacting past oological practices tie in with wider trends in historical geography research outlined near the beginning of this chapter.

Other activities at GM

As well as conducting research into the history and practices of egg-collecting as described in the preceding sections, another crucial aspect of the PhD project was to gain direct experience of GM as an organisation, and insight into its ethos and culture, which I did during my visits to GMRC and other GM venues. During my visits to GM, I undertook

[59] Hen's eggs are usually unfertilised, so in blowing them one does not destroy a potential living bird. Also, blowing them is not illegal.
[60] The single-hole egg I blew was later accidentally broken.

various activities to gain a feel for some of the different aspects of its operations. I spoke to members of staff about specific topics, and attended a number of meetings, some held regularly, to witness some of the processes related to collections and curation in GM. Table 3.1 summarises activities carried out at (or with) GM in addition to activities directly connected with the egg collections and archives.

Table 3.1 Additional activities carried out by Edward Cole at GM.

Collections Meeting, GMRC, 8 October 2013 Sat in on the meeting to gain a feel for the kind of matters discussed, which include matters relating to the care and management of the GM collections, including loans, acquisitions, tours, conservation, library and archive updates, research requests and incident reports.
GM Research Conference, Burrell Collection, 1 November 2013 Watched presentations given on various aspects of research by and about GM, by staff, volunteers and other researchers.
Carolyn Foran, Learning and Access Curator, Kelvingrove, 29 November 2013 Discussion with Carolyn and Richard Sutcliffe about the popularity of egg displays with children visiting the museum, and the possible inclusion of eggs in the West Court redevelopment, and a bespoke giant plastic egg in a forthcoming exhibition about dinosaurs.[61]
Julie Taylor, Senior Programme Manager, 6 August 2014 at GMRC Introduction to the GM project planning process.
Isobel McDonald, Curator of Social History, GMRC, 23 October 2014 Introduction to accessioning, including practical experience of adding some commemorative objects from the 2014 Commonwealth Games.
GM Annual Research Conference, Burrell Collection, 1 November 2014 Gave a presentation about interconnections between some collectors represented in the GM collections. Watched other presentations given on various aspects of research by and about GM, by staff, volunteers and other researchers.
Pat Allan, Curator of World Cultures, Glasgow University, 27 November 2014 I assisted Pat when she gave a session on museum ethics to the Museum Studies MSc at Glasgow University. The session concentrated on repatriation.
Curatorial Forum, Kelvingrove, 16 December 2014 'Pecha kucha' session with presentations from various members of the GM Research & Curatorial Team about their activities in 2014.
Curatorial Forum, St Mungo, 10 November 2015 Discussion of project guidelines, principles and processes in GM.
Stephanie de Roemer, Sculpture Conservator, GMRC, 16 November 2015 Brief discussion about the multiple layers of meanings that objects can have, and the wide variety of interpretative options that these meanings open up. Steph also highlighted how changing values over time affect interpretation and display (e.g. fig leaves put on sculptures).
Curatorial forum, Glasgow Women's Library, 17 December 2015 'Pecha kucha' session with presentations from various members of the GM Research & Curatorial Team about their activities in 2015.

[61] See Chapter 7 or further discussion of the West Court redevelopment at Kelvingrove.

As well as timetabled meetings and events, more informal contact and discussion was also very important. For example, I gained a feel for the day-to-day work of curators by speaking to natural sciences curators such as Curator of Entomology, Jeanne Robinson (now at the Hunterian Museum, University of Glasgow) and Ann Ainsworth, who started as Curator of Geology in 2014. I also talked informally a number of times to Laurence Simmen, a Conservator who works on the natural history collections. As well as meeting GM staff, I encountered some of the volunteers who came to GMRC to help Richard with cataloguing and other activities, and who complete a lot of the cataloguing work that the paid staff simply no longer have time to undertake.

I attended the GM Annual Research Conferences in 2013 and 2014, giving a presentation at the latter event, and also watched 'pecha kucha' presentations in 2014 and 2015 given by curatorial staff. At these events I learned about the wide range of research activities being carried out by both curatorial staff and other GM employees, volunteers and other students involved in collaborative research, speaking to and comparing experiences with the latter. I was given a staff ID and email address, and the internal emails sent to staff provided insight into current issues and preoccupations of GM and its parent organisation, Glasgow Life.[62] Exposure to different people, activities and communications within GM allowed me to build up something approaching an informal ethnography of the organisation, and to understand some aspects of its ethos and culture. However, the organisational culture and politics of GM are not a primary focus of my research and have been of interest mainly to the extent that they affect the treatment and curation of the egg collections and difficult collections more generally.[63]

I paid visits to various GM sites to see exhibitions and displays at different stages of development. For example, Helen took me behind the scenes at Kelvingrove Museum to see the Glasgow Stories gallery before it was refurbished, and again when the installation of new displays was underway. These visits provided insight into issues of display such as which objects are chosen, the layout of display cases (both internally and in relation to one another) and the accompanying labels and graphic panels. Helen also pointed out practical matters that are easy to overlook but can be crucial factors in putting together a display, such as the need physically to be able to move and fit an object into a particular space. In

[62] I had a hybrid status at GM, given a staff ID and email account but not an entry pass. I also only required Richard to be present when I was in the pods, whereas a 'standard' visitor must be accompanied by two members of staff (see Chapter 7).
[63] See PhD theses by Beel (2010) and Munro (2013) for examples of research more closely focused on organisational and political aspects of GM.

particular, I was alerted to the benefits of versatility in museum displays, such as being able to replace objects easily, and the potential sensitivity of some subject matter (e.g. sectarianism in Glasgow). Helen also showed me round the St Mungo Museum of Religious Life and Art, with a focus on different, and often subtle, ways in which 'difficulty' can arise in museum display. Examples included the history of sectarian divide in Glasgow, and whether displays should include some subjects such as sacred objects or photographs of ceremonies, the showing of which may be deemed inappropriate by some cultural groups.

A very significant addition to the GM egg collections was made fortuitously during this project with the donation to GM of the Liddell collection in 2014. I accompanied GM staff on an overnight visit to near Inverness to take receipt of this collection, and later helped Richard unpack the collection at GMRC, and started to catalogue the eggs. An opportunity also arose in early 2016 to display material associated with the egg collections in the foyer at GMRC. The activities relating to the Liddell collection and the GMRC foyer display will be discussed in detail in Chapter 7.

Contact with other museums, organisations and individuals

Other museums and curators

In addition to frequent visits to GMRC and occasionally to other GM venues, I visited other museums with egg collections to speak to the curators there and see how they dealt with these collections. Bob McGowan, Senior Curator of Vertebrates at National Museums Scotland in Edinburgh, who specialises in birds, is one of the foremost experts on egg-collecting in the UK, and has provided me with much useful information over a number of visits. McGowan has an office at the main museum site on Chambers Street, but also spends a large amount of time at the museum stores on the outskirts of Edinburgh where the egg collections are held, and I visited him at both sites. The collections of National Museums Scotland are considerably larger than GM's, with over 45,000 clutches (eBEAC n.d.) and accompanying archival material, including the meticulous (and misanthropic) notes of collector J.H. McNeile. This archival material awaits comprehensive research, and McGowan offered access to it for comparative purposes in this project, but time limitations prevented me taking up his offer.

Douglas Russell, Senior Curator, Birds at the Natural History Museum is responsible for the egg and nest collections that are held at Tring in Hertfordshire, South-East England, which includes over 200,000 clutches (eBEAC n.d.) in premises donated to the museum by Lord Rothschild.[64] Security is understandably tight at this venue, especially given some significant thefts of birds' eggs (see Chapter 7). I visited Russell on 18 February 2014, and he provided me with a large amount of information on various matters pertaining to the Museum's collections. He also showed me some of their six great auk eggs, among the only known surviving specimens in the world (see Chapter 5). During my visit I also spoke to Zoe Varley, a volunteer who was digitising the approximately 180,000 egg data cards held by the museum. She had done a Museums Studies Masters course, and we discussed the value of natural history collections for research in the humanities as well as the sciences.

Closer to home, I met Maggie Reilly, Curator of Zoology at the Hunterian Museum based in the University of Glasgow. Although the Hunterian's collections of eggs are not extensive, they were interesting to see, and Reilly told me about the main collectors represented. I had valuable discussions with Adam Hotson, who wrote his Museums Studies Masters dissertation based on the Hunterian egg collections, in which he investigated their history as well as attending to more practical matters such as cataloguing (Hotson 2015). Discussions with Sjurdur Hammer and more briefly with Nina O'Hanlon, both University of Glasgow Zooogy PhD students, gave insights into the use of historical egg collections and data for scientific research, discussed in Chapter 7 (Hammer 2016; O'Hanlon 2016).

I attended the second day of the 2015 annual conference of NatSCA, the Natural Sciences Collections Association, an organisation for curators working with natural history museum collections. Watching the presentations and speaking to attendees gave me insight into the concerns of the profession, particularly with regard to 'using traditional and social media to communicate collections' (the theme of the conference). I also presented on the day and wrote a blog post for the NatSCA website later. As part of the proceedings, we were shown round the natural history stores at Bristol Museums by curator Bonny Griffin, although I

[64] See Appendix 2 for brief biographical notes on Rothschild.

did not have time to see the birds' eggs.[65] Visits were made to other natural history museums as a member of the public, including the Natural History Museum's London site and the Field Museum in Chicago. While not including many birds' eggs, the exhibits in these museums allowed for comparisons of natural history exhibits more generally with those at GM.

Other organisations and individuals

I visited the headquarters of the Scottish Ornithologists' Club, at Aberlady in East Lothian, twice to introduce myself and to use their Waterston Library, which contains a number of books and journals of oological interest. There I also met David Clugston, Honorary Librarian, who offered me access to his own library. Clugston has never been an egg collector but has been interested in ornithology from an early age and, growing up in the Wirral, was aware of Harold Gowland, a notable egg dealer based nearby at Barnston who also published *Bird Land*. He finds the history of oology a particularly fascinating topic, building up a vast collection of material on the subject to which he kindly gave me access, including material that I would not have been able to find anywhere else, even in the copyright libraries. Clugston himself was also a mine of information.

A few conversations also took place with a well-known photographer – whom I will not name – who was hoping to make a book showing museum birds' eggs along with the types of landscapes and habitats they would have been taken from. Unfortunately he was soon advised against the project, given the sensitivity around egg-collecting as a subject, so it was not taken further. He had consulted a major conservation group who felt that it could inadvertently promote interest in egg-collecting and perhaps encourage people to visit nesting sites. These types of consideration are also potentially applicable to the display (or other vehicles for publicising) museum egg collections, forming another aspect of difficulty surrounding them, and will be discussed in Chapter 7.

Limits set and routes not taken

In carrying out this project it has been necessary to set limits as to its scope, notably the

[65] A small egg display was included in the newly refurbished public gallery, with a sign mentioning illegality and that it used to be a popular hobby.

restriction of the focus to the GM egg collections and egg collectors in particular, and to British egg-collecting more generally. It does not, however, attempt to be a comprehensive social history, but rather a focused historical geography of egg-collecting always spiralling around the issue of difficult museum collections. The focus has been on the first half of the twentieth century, approximately 1900-1960, when many of the GM egg collectors were active. This period is particularly pertinent because it broadly covers the transition of egg-collecting from being a popular hobby among both children and adults, to being a wildlife crime carried out by a dwindling number of secretive individuals. It was during these years that egg-collecting was arguably at its most difficult in terms of being ethically contested, a central concern of this project. The earlier emergence of egg-collecting as a popular pursuit has not been investigated in detail, especially as GM does not hold many eggs taken before the late Victorian period when the practice was already well-established. The present-day situation of egg-collecting, as discussed in some recent studies in different media (Rubinstein 2013; Wheeler's 2015 film *Poached*), has also not been a chief focus of this project. However, this context does affect how egg collections are currently held by museums and displayed, if at all, and informs the public consciousness of egg-collecting. In addition, the receipt of the Liddell collection has brought recent history directly into the GM cabinets.

Regional differences in egg-collecting – that is to say between different parts of the UK or between different countries – have not been investigated in this thesis. On the other hand, the taking of eggs from other countries by British collectors has been considered, although not a major topic. Of the collectors represented at GM, Mackenzie collected in Burma and Arbuthnott's collection includes some eggs collected abroad (although not by him). In addition, *OR* provides a wealth of material about the collecting trips of British collectors abroad more generally, suggesting certain colonial and imperial thematics for my study.

There was an active trade in eggs in the decades leading up to, and following the turn of, the twentieth century, and some of the GM collectors, notably Mackenzie, were avid buyers of eggs from dealers, auction houses and other collectors. The world of egg dealing has already been the subject of a monograph by Cole (2006), and it was considered unnecessary to conduct further detailed research into this aspect of oology. The subject is, however, discussed briefly in Chapter 6.

As mentioned above, Richard and Alison Sutcliffe carried out biographical research on

some of the main GM collectors, namely Arbuthnott, Mackenzie, Campbell and Cross. Their findings have been called upon at numerous points in this thesis. There is very little biographical information in the GM archive on any of the other collectors. Some further information on Robertson or Crowther may potentially have been gleaned by contacting surviving relatives, but this would have been at the expense of the wider contextual and thematic research into egg-collecting. It was decided to prioritise the latter course of action, while acknowledging the value of biographical approaches in historical geography (e.g. Thomas 2004; Keighren 2007; Lorimer 2014). To an extent, this thesis does contain constellations of 'mini-biographical' engagements, both with the GM collectors and with some of the major figures of twentieth-century oology such as Francis Jourdain and William Congreve, as summarised in Appendix 2.

I decided not to attempt to augment written sources with an oral history of egg-collecting, for a number of reasons. The GM archive, along with contextual sources such as *OR* and *BL*, already provided a rich mine of information about personal experiences and motivations for collecting. A focus on the written word in these sources has hence covered much of the ground that an oral history could have disclosed. Another issue was the availability of surviving egg collectors, especially from the days before the practice became illegal. McGowan did give me the contact details of a former egg collector living in Spain, R.J. Connor, with whom I entered a brief correspondence furnishing information and a few quotes in the following chapters. Conversations with this individual, and with similar others if they could be located, could form the basis of further scholarly investigation into the history of egg-collecting.

Conclusion

In the above discussion, I have sought to justify and give details of my approach in this project regarding the use of both methods and sources. Broadly speaking, the project has consisted of several main strands. I have tried to recover the history and practices of the GM egg collections and collectors, and of British egg-collecting more generally. This research has mainly been archival in nature, calling on a variety of different sources within and outwith GM, and including the eggs as a material archive. I have also sought to re-enact and recover (as far as ethically and legally justifiable) some of the practices and casts of mind involved in egg-collecting. The project has involved practical experience of

working with, and as part of, GM. In doing so I have gained insight into the culture of Glasgow Museum as an organisation, and been exposed to many of the practical and other challenges that exist with natural history (and other types of) museum collections. Particularly significant experiences with GM have included taking receipt of, and later working with, the newly donated Liddell collection. The opportunity to put together a display of eggs at GMRC in 2016 has formed a timely culmination to the PhD project.

The following chapters contain my empirical findings about the practice and culture of British egg-collecting in general, and of the collectors whose collections are represented at GM in particular. As explained, my analysis across these chapters is organised spatially, according to the routes that eggs would have taken to end up in the museum: as collected from different places and landscapes, then as being transported into collectors' homes and collections. By doing so, the eggs became part of the social world of egg-collecting, possibly also being traded between collectors, exhibited at meetings of enthusiasts or reported in specialist journals. Finally, they have been donated (or in earlier eras, possibly sold) to the museum, where they may have moved between display and storage. The first stage on the journey from nest to museum is out in 'the field' as a generic site, which forms the subject of the first empirically-facing chapter.

Chapter 4. The Field

Introduction

'The field' is the generic name given here for the diverse specific locations from where eggs were originally collected; of course, this does not have to mean an actual field, but any location where birds were found nesting by collectors. As such, 'the field' represents a hugely diverse array of physical sites, geographically, ranging from very near the collector's home to the other end of the British Isles, and sometimes further afield to different countries or even continents. [66] The type of terrain and habitat where nests could be found also varied widely, including (among others) woods, bogs, moorlands, mountainsides, beaches, sea cliffs, riversides and, occasionally, farmers' fields. In this chapter I will follow the process of collectors in finding nests and eggs in these different locations, reaching and collecting them, and finally carrying them back to their collections intact (or so they hoped). In doing so, I aim show the talismanic significance attached to the field, and hence to fieldwork, by egg-collectors as a source of epistemic and experiential authority.

GM has three sets of collecting notes from out in the field by Hay, Robertson and various members of the Arbuthnott family. These sources will be discussed in turn, before investigating different practical aspects of the field collecting process, based on the written experiences of the GM collectors along with published oological sources. Topics covered include: finding nests; taking eggs from often hard-to-reach sites; carrying and transporting eggs in and from the field; the advantages and disadvantages of collecting alone or with companions; and potential brushes with disapproving figures such as landowners. The central epistemological and experiential importance attached to fieldwork in egg-collecting, and how these attitudes chime with existing literature on the field as a scientific site, introduced in Chapter 2, will be discussed. Finally, the GM archive will be revisited, recounting the field experience of Donald Cross, in the unusual position of an ex-collector whose energies in later years were turned towards protecting eagle nests rather than taking eggs, a poacher-turned-gamekeeper.

[66] Scare quotes will be dropped from 'the field' for the remainder of this chapter.

Field notes of the GM collectors

Peter Hay

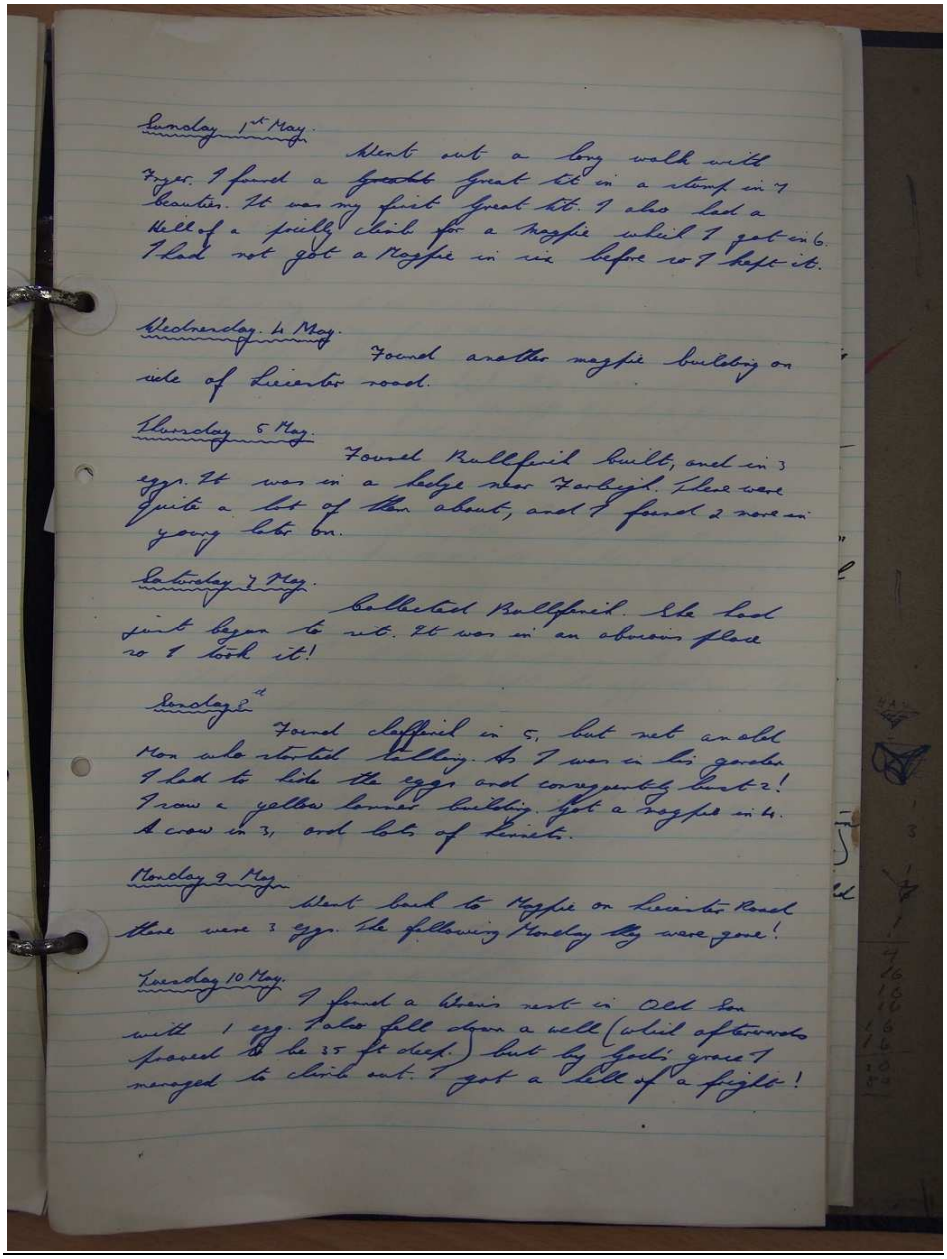
Hay's notes at GM are contained in a foolscap ring binder. Each year is introduced and summarised retrospectively, but it is not recorded how long summaries were offered after the event. The handwriting, grammar and spelling suggest a youth rather than a mature adult. For the year 1949 there are also detailed day-by-day descriptions of Hay's nesting exploits. The detail and fresh feel of these notes suggest that they were originally written shortly after a field-outing took place, even if they were re-written for 'show' later. GM also has a set of data cards from Hay, some of which reveal further brief details of his field exploits.

In Hay's first years of collecting, he was a 'schoolboy' collector. He lived with his parents near Ayr during school holidays, and in term-time attended boarding school at Uppingham, Leicestershire. He thus 'had a northern and a southern nesting haunt', which increased the variety of eggs to be obtained, given different breeding ranges of different birds.[67] Hay also came to know Captain Donald Cross (also represented in the GM collections) of Otterden near Maybole, Ayrshire, who gave him eggs of difficult-to-obtain species. The pair went nesting together occasionally, and sometimes Cross sent out one of his gamekeepers to accompany Hay. By the end of 1948 (recorded as 'My First Year') and aged 15 or 16, Hay had 89 clutches, including 14 gifted to him by Cross, and a few from a John Brown which he had exchanged for some English-obtained clutches.

Figure 4.1 shows a page from Hay's notes covering a busy ten day period at Uppingham in 1949. My transcription of this page is as follows:

> Sunday 1st May.
>
> Went out a long walk with Fryer. I found a Great tit in a stump in 7 beauties. It was my first Great tit. I also had a hell of a prickly climb for a magpie which I got in 6 [i.e. six eggs]. I had not got a magpie in six before so I kept it.
>
> Wednesday 4 May.
>
> Found another magpie building on side of Leicester road

[67] Quote taken from Hay's collecting notes. All unattributed quotes in the following are taken from the archival sources for the collection under scrutiny.


Sunday 1st May.
Went out a long walk with Tyger. I found a [illegible] Great tit in a stump in 7 beauties. It was my first Great tit. I also had a hell of a fright climb for a magpie which I got in 6. I had not got a Magpie in six before so I took it.

Wednesday 4 May.
Found another magpie building on side of Lucerne road.

Thursday 5 May.
Found Bullfinch built, and in 3 eggs. It was in a ledge near Farbigh. There were quite a lot of them about, and I found 2 more in young later on.

Saturday 7 May.
Collected Bullfinch. She had just begun to sit. It was in an obvious place so I took it!

Sunday 8th.
Found chaffinch in 5, but met an old Man who started talking. As I was in his garden I had to hide the eggs and consequently lost 2! I saw a yellow hammer building. Got a magpie in 4. A crow in 3, and lots of linnets.

Monday 9 May.
Went back to Magpie on Lucerne Road there were 3 eggs. The following Monday they were gone!

Tuesday 10 May.
I found a Crow's nest in Old Inn with 1 egg. Fell down a well (which afterwards proved to be 35 ft deep) but by God's grace I managed to climb out. I got a bit of a fright!

Figure 4.1 Extract from Peter Hay's nesting records, 1-10 May 1949.
(© CSG CIC Glasgow Museums Collection)

Thursday 6 May.

Found Bullfinch built, and in 3 eggs. It was in a ledge near Farbigh [?]. There were quite a lot of them about, and I found 2 more in young later on.

Saturday 7 May.

Collected Bullfinch. She had just begun to sit. It was in an obvious place so I took it!

Sunday 8th.

Found chaffinch in 5, but met an old man who started talking. As I was in his garden I had to hide the eggs and consequently lost 2![68] I saw a yellow hammer building. Got a magpie in 4. A crow in 3, and lots of linnets.

[68] This entry will be discussed in 'Trespass and transgression' below.

Monday 9 May.

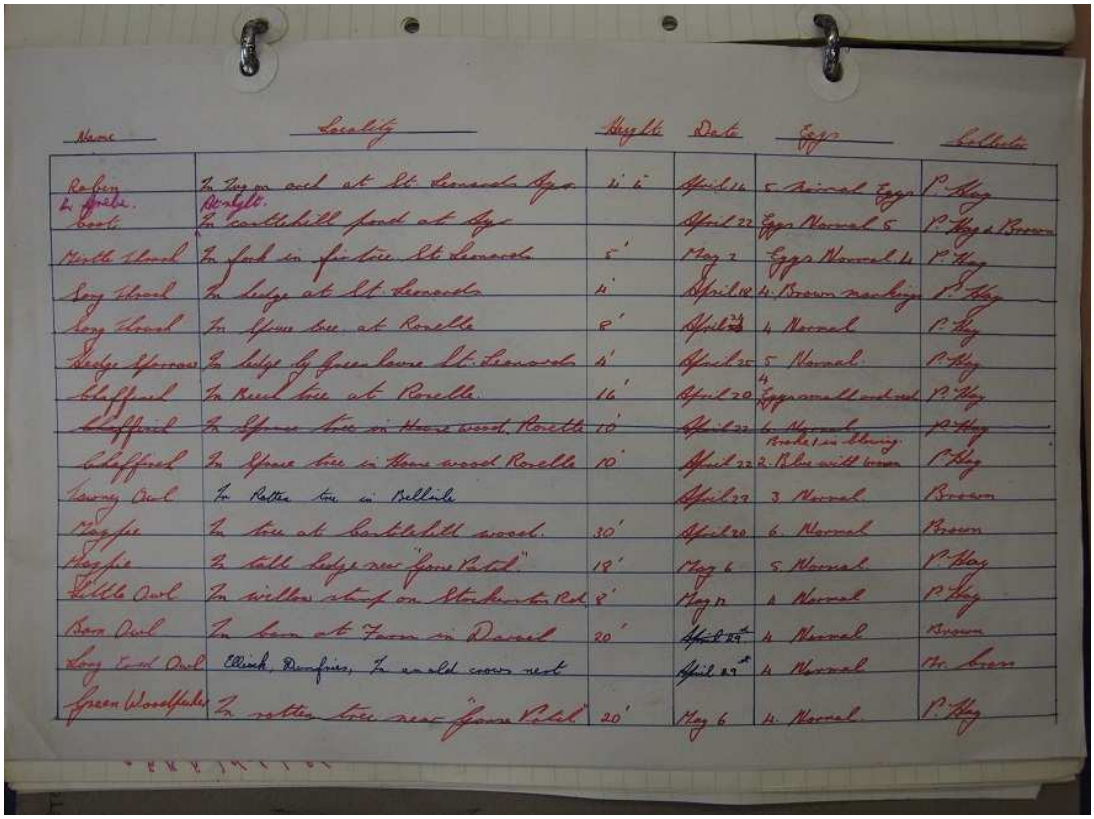
Went back to Magpie on Liecester [*sic*] Road there were 3 eggs. The following Monday they were gone!

Tuesday 10 May.

I found a Wren's nest in Old Son with 1 egg. I also fell down a well (which afterwards found to be 35 ft deep) but by God's grace I managed to climb out. I got a hell of a fright!

These records illustrate several different aspects of Hay's exploits, and of collecting more generally. First, note Hay's description of eggs on 1 May as 'beauties', a term of description he often used: as well as a straightforward aesthetic meaning, it also perhaps suggests a feminine characterisation of the eggs. The same day he had 'a hell of a prickly climb' to reach some magpie eggs, an entry that combines two common descriptive features of egg-collecting: climbing and discomfort. Another item of information often recorded in Hay's notes, common to almost all serious collectors and considered in more detail below, is the number of eggs in each clutch or set of eggs. If a collector found a clutch of a species containing a different number of eggs from other clutches of that species found previously, he would be more likely to take it; as Hay did with the clutch of six magpie eggs ('I had not got a magpie in six before …').

Over the ten day period shown, Hay found a bullfinch nest on 6 May, returning to it two days later, also returning on 9 May to a magpie nest found five days previously. Collectors would often look out for nests being built and then wait for the optimal return time to collect the eggs, after the whole clutch had been laid, but before the eggs had been incubated for very long, as they would be easier to blow at this stage. Hay also reported that the following Monday, the Magpie eggs were gone, implying theft by another collector (rather than hatching, in which case the chicks should still have been in the nest). Given the proximity of the school, the culprit may have been a fellow pupil, and to conjecture that Hay was not the only egg collector in Uppingham seems reasonable. These entries also indicate the advantages of checking nests as frequently as possible. On the final day of the extract shown, Hay fell down a well. This could have easily have put an early end to his collecting career, and to his entire life: accidents and close shaves were fairly common, if anything adding to lustre of eggs eventually collected, as revisited later in this chapter.



Name	Locality	Height	Date	Eggs	Collector
Robin & Pied Wagtail	In Tree on end of St Leonards Agra Workyle.	4' 6"	April 16	5 Normal Eggs	P. Hay
Coot	In Coalhill pond at Agra		April 22	Eggs Normal 5	P. Hay & Brown
Water Hen	In Sod in fir tree St Leonards	5'	May 2	Eggs Normal 4	P. Hay
Song Thrush	In hedge at St Leonards	4'	April 18	4 Brown markings	P. Hay
Song Thrush	In Yew tree at Rosella	8'	April 23rd	4 Normal	P. Hay
Hedge Sparrow	In hedge by Greenhouse St Leonards	4'	April 25	5 Normal	P. Hay
Chaffinch	In Beech tree at Rosella	16'	April 20	4 Eggs small and red	P. Hay
Chaffinch	In Yew tree in Horse wood, Rosella	10'	April 22	4 Normal Broke 1 on Blowing	P. Hay
Chaffinch	In Yew tree in Horse wood Rosella	10'	April 22	2 Blue with brown	P. Hay
Tawny Owl	In Rotten tree in Bellisle		April 29	3 Normal	Brown
Magpie	In tree at Coalhill wood.	30'	April 20	6 Normal	Brown
Magpie	In tall hedge near "Gone Rotten"	18'	May 6	5 Normal	P. Hay
Little Owl	In willow stump on Stockiemuir Rd	8'	May 2	4 Normal	P. Hay
Barn Owl	In barn at Farm in Dairsie	20'	April 29th	4 Normal	Brown
Long Eared Owl	Nr Dumfries, In ruined crows nest		April 29th	4 Normal	Mr. Cross
Green Woodpecker	In rotten tree near "Gone Rotten"	20'	May 6	4 Normal	P. Hay

Figure 4.2 Extract from Peter Hay's 1949 nesting records.
(© CSG CIC Glasgow Museums Collection)

After his day-by-day entries, Hay's notes also list his clutches in tabulated form, as shown in Figure 4.2.[69] A record of species, locality, date, number and type of eggs, and collector were standard forms of data entry for any collector. Recording the nest's height off the ground was less typical, but illustrates just how many nests required climbing to reach them. Hay's activities continued in 1950 even if, having left school, opportunities were 'handicapped by working!' Farmwork provided many opportunities for collecting. At Riccarton, he was:

> … not long there before got word about Whinchats from Davey, and one Sunday I "Did Them"! Then while poaching with Doug Connell I found a Woodcock completely by luck. This was of course a terrific find which I will always remember and treasure.
>
> Then I found lots of Sedge Warbs about the farm, On my Weekends off I cleaned up the Martin family.

A throwaway mention of poaching suggests that illegal hunting was fairly commonplace for a young man in the country at that time, while excitement at finding a woodcock egg or clutch indicates pleasure at the rarity of this find. Talk of having 'cleaned up the Martin

[69] Most of them were self-taken , but a few were the work of Brown, his occasional companion, and 'Mr. Cross' provided the Long Eared Owl clutch, from a location near Dumfries, which would have been a long way for Hay to travel without his own transport.

family' suggests Hay in avid acquisitory mode: it was the aim of many a collector to obtain at least one representative clutch of each species breeding in Britain. The year 1951 saw further collecting in Ayrshire, this in spite of a motorcycle accident that for some time prevented him from driving to nesting sites. The year included other frustrations, such as when 'I was let down badly by D.C. & D. Mair over S.E. [short-eared] Owls. However I hope to make this number one for 1952.' Hay did manage a few 'new entries' in 1951, including grey wagtail and redpoll.[70]

The year 1952 is the last for which GM have notes by Hay. There are separate summaries of searches for ravens, rooks and hawks, and a final section on 'Shets.', describing a trip to the Shetland Isles to stay with 'D.C' (Donald Cross). Cross had a house on Vementry, where Hay encountered certain seabird species for the first time, such as 'Bonksy' (great skua), which he '[p]icked up ... easily with 2 beauties' and other species (see Figure 4.3). As well as gathering eggs for their collections, Cross and Hay also 'took plenty of Lesser B.B. [black-backed] Gulls eggs home for eating.' In his final entry for the trip, and for the entire file, Hay noted that '[t]his Shetland trip proved most Successful & I enjoyed it beyond belief'. Enjoyment is a feature that runs throughout Hay's notes, which speak of genuine, unalloyed enthusiasm for egg-collecting.

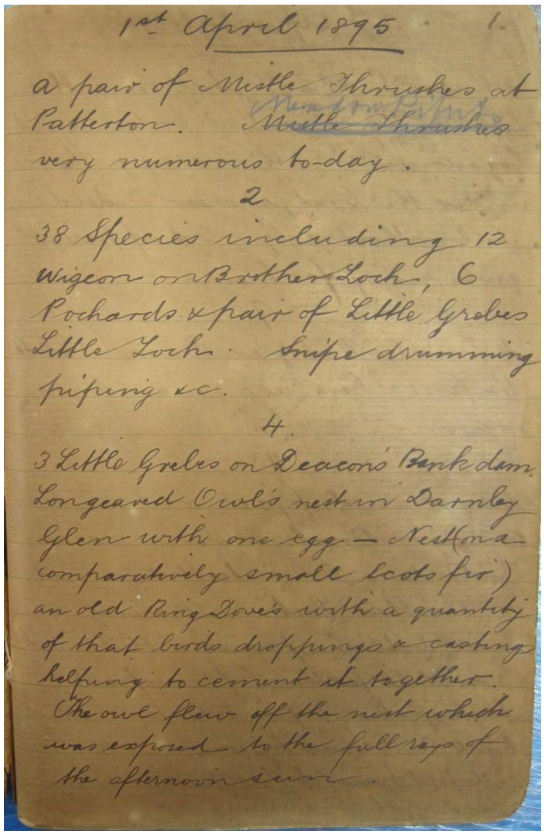
Figure 4.3 Dore Holm in Shetland. On Hay's Shetland trip, he and Cross 'managed to land on Dor [sic] Holm & got Fulmars, Puffins & G.B.B. [Great Black-backed] Gull. This trip could be told in a book, but it is so clear in my mind I only need to write down the bare essentials'.
(Picture copyright Rob Farrow at http://www.geograph.org.uk/photo/2588397, downloaded on 1 April 2015)

[70] Apropos mention of 'new entries', the *New Musical Express* published its first singles chart the following year, reflecting the emergence of competing calls on the attention of teenagers such as Hay.

Robertson

GM also holds a notebook donated along with the Robertson egg collection, running from 1 April 1895 to 31 December 1897. The author of the diary is not recorded, although the dates suggest that it may have been John Robertson, father of Ian Robertson whose collection was donated. The author will simply be referred to as 'Robertson' in this discussion. The first page of the diary is reproduced as Figure 4.4, showing a few characteristics typical of Robertson. My transcription is as follows:

> 1st April 1895.
>
> A pair of Mistle Thrushes at Patterton. Meadow Pipits very numerous to-day.
>
> 2 [April]
>
> 38 Species including 12 Wigeon on Brother Loch, 6 Pochards & pair of Little Grebes Little Loch. Snipe drumming piping &c.
>
> 4. [April]
>
> 3 Little Grebe on Deacons' Bank dam. Longeared Owl's nest in Darnley Glen with one egg – Nest (on a comparatively small Scots fir) and old Ring dove's with a quantity of that birds droppings & castings helping to cement it together. The owl flew off the nest which was exposed to the full rays of the afternoon sun.


1st April 1895 1.

a pair of Mistle Thrushes at Patterton. Mistle Thrushes very numerous to-day.

2

38 Species including 12 Wigeon on Brother Loch, 6 Pochards & pair of Little Grebes Little Loch. Snipe drumming piping &c.

4.

3 Little Grebes on Deacons' Bank dam. Longeared Owl's nest in Darnley Glen with one egg – Nest (on a comparatively small Scots fir) an old Ring Doves with a quantity of that birds droppings & castings helping to cement it together. The owl flew off the nest which was exposed to the full rays of the afternoon sun.

Figure 4.4 Extract from John Robertson's notes, 1-4 April 1895.
(© CSG CIC Glasgow Museums Collection)

These entries are different in style and detail from Hay's diary. The first two entries make no mention of nests or eggs, suggesting that Robertson had a wider interest in birdwatching as well as in egg-collecting. He was clearly well-versed in bird identification, being able to spot 38 species in one day (2 April). Another notable feature of Robertson's diary is the careful observation and knowledge of nest building: of the old ring dove's nest, he describes the 'droppings & castings helping to cement it to-gether'. On 15 April 1895, during a trip to Barrhill and Glen Trool in the remote Galloway Hills, he found a:[71]

> Raven's nest with two young ones in cliff on Buchan Hill where Peregrines nest was two years ago. The nest was about four feet higher up than the Peregrines and was built of the hard bleached stems of heather and plentifully lined with sheep's wool.

The careful description of nesting material and location is noteworthy. Indeed, Robertson could remember (or so he thought) the exact location of a peregrine's nest on the same cliff from previous years, which suggests a sharp memory for this kind of thing.

The majority of Robertson's entries record his activities on the southern peripheries of Glasgow, some in country areas that today have been assimilated into the city, such as Giffnock, where he recorded seeing whinchat and corn bunting. He also spent a lot of time around local woods and farms, but his favourite haunt was a series of dams and reservoirs built to the south of the city to supply water: Brother and Little Lochs, Ryatt and Balgray Dams (see Figure 4.5), and others nearby. Less frequently, he went on day trips to places further afield such as the Ayrshire coast or Lanark, while he took one or two extended breaks each year in early summer, to Galloway or Auchterarder near Perthshire, which appear to have been birdwatching rather than specifically egg-collecting trips.

Every collector had his own unique combination of interests and idiosyncracies, but common 'types' and patterns are discernible. Even from the briefest notes kept, differences can be discerned between Hay and Robertson. Whereas Hay seemed to be a collector first and foremost, Robertson appears to have taken a greater interest in carefully recording details such as the stage of incubation, breeding behaviour and bird calls. He also took note of bird and animal life more widely, suggesting that bird-watching was part of a greater appetite for natural history. Robertson's diary reveals detailed knowledge gained from

[71] This trip likely involved a train ride to Barrhill and possibly a horse-drawn charabanc to reach Glen Trool (a popular tourist destination) over a dozen miles beyond, although walks of heroic proportions were not uncommon among Victorian naturalists (Allen 1994).

careful observation, while it also displays a more restrained, quieter writing style than Hay. He rarely gives a direct sense of excitement or enthusiasm at a find. Most of the information recorded is ostensibly matter-of-fact: descriptions of nests or eggs, and counts of number of species seen. Only very occasionally is aesthetic appreciation revealed, such as seeing some 'Reed Buntings ... beautifully marked near Lyon Cross dam' on 1st November 1896. Hay's enthusiasm and even boisterousness, on the other hand, shines through on the page, describing eggs as 'beauties' and using hyperbolic terms such as 'the tragedy of a life-time' when he dropped some eggs.

Figure 4.5 The Balgray reservoir south of Glasgow, one of Robertson's regular haunts. (Author's own photo)

Arbuthnott family

The third set of field notes held by GM takes the form of several notebooks kept by the Arbuthnott family, dating from the first decade of the twentieth century (particularly 1904-1907) with entries for a few earlier and later eggs. The Arbuthnotts lived in Harrogate, part of the old West Riding of Yorkshire, and many of the collecting notes are from the local area: in Harrogate itself, the surrounding valley of Nidderdale, further west into the other Yorkshire Dales, or east towards the Vale of York. There are also entries recording bird of prey finds from the Lake District, seabird egg-specimens taken around Rousay in Orkney, and others from outside the UK, although not taken by the Arbuthnotts personally.

There are three notebooks, two hardback and one softback. The handwriting evidence strongly suggests they were the work of one adult and two children. Given the biographical information available, they most likely belonged to Hugh Corsar Arbuthnott (1860-1915) and two of his children. Figure 4.6 shows part of a typical page from Arbuthnott senior's notebook. My transcription is as follows:

16. Cinclus Aquaticus – Common Dipper.
1. Clutch of 5. Grassington. Yorkshire. Taken with Steward 3-4-04 [+ added comment:] Quite exposed in rocks over river - let Steward down with a rope.
2. Clutch of 5. Grassington. Yorkshire. Taken with Steward + Wade 24-4-04. [+ added comment:] This nest was so well hid under the bank that it was found by fluke
3. Clutch of 5. Fresh. The Strid. Bolton Abbey Yorkshire. Self + Steward 11-4-07. There was a nest in the same site last year + the birds brought off the young – Nest in rock face about 7 feet up + 12 feet from River Wharf there is a path between the rock + river + hundreds of people go along who go to see the Strid.
5- Clutch of 5 fresh. Birstwith Yorkshire 30/4/02 R Fortune
4- Clutch of 5 fresh Nest found by self Bolton Abbey Yorkshire taken by John 15-4-07

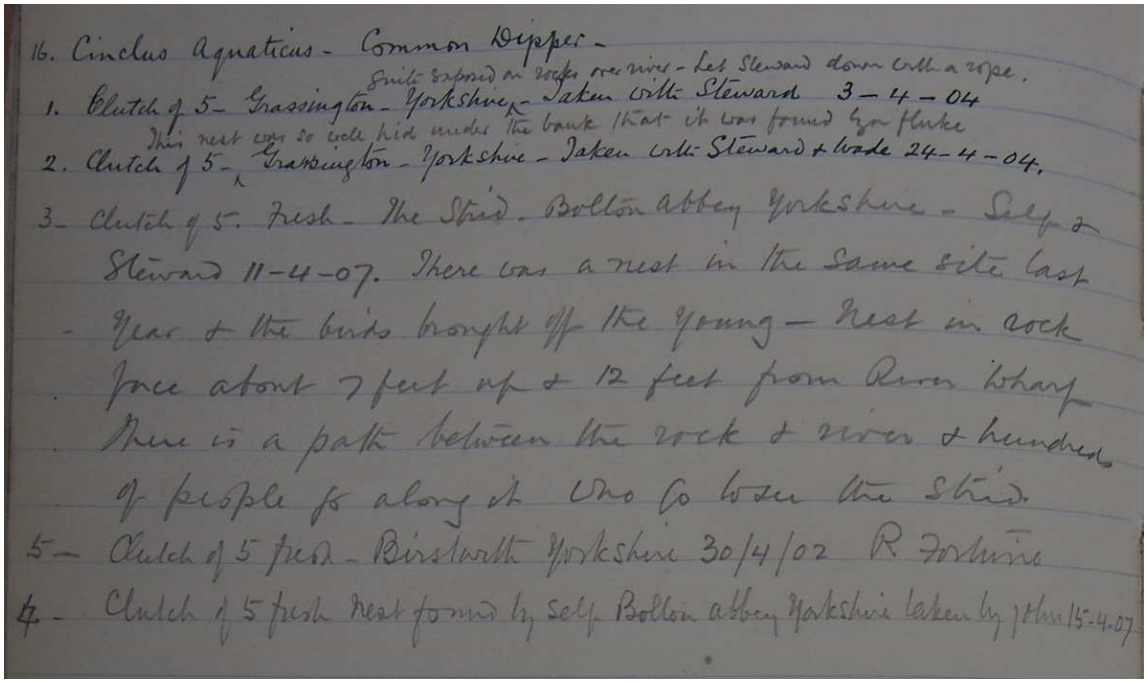

16. Cinclus Aquaticus - Common Dipper -
1. Clutch of 5 - Grassington - Yorkshire - Taken with Steward 3 - 4 - 04
2. Clutch of 5 - Grassington - Yorkshire - Taken with Steward + Wade 24 - 4 - 04.
3 - Clutch of 5. Fresh - The Strid - Bolton abbey Yorkshire - Self + Steward 11-4-07. There was a nest in the same site last year & the birds brought off the young — Nest in rock face about 7 feet up & 12 feet from River Wharf there is a path between the rock & river & hundreds of people go along it who go to see the Strid.
5 — Clutch of 5 fresh - Birstwith Yorkshire 30/4/02 R Fortune
4 - Clutch of 5 fresh Nest found by self Bolton abbey Yorkshire taken by John 15-4-07

Figure 4.6 Extract from Arbuthnott notebook (1) detailing common dipper clutches. (© CSG CIC Glasgow Museums Collection)

The notes are arranged by species rather than chronology, reflecting a different kind of epistemic space in this source. Standard lists of species were available, each given a number, which collectors could use to order their collections (see Chapter 5). In this case 16 was the Common Dipper, while 17 was left blank, indicating that Arbuthnott had not yet obtained any eggs of this species. For eggs that were in the collection, the clutch size,

location and occasionally stage of incubation (usually 'fresh') were recorded.

The excerpt above, and the notebook more generally, reveal a collection that was very much the joint effort of a number of collectors. Some eggs were taken by Arbuthnott senior, but more were taken in the company of another collector or collectors. Sometimes it was with his children, such as the Dipper clutch 4 'taken by John', or 'Self John & Hugh' (Redbreast 3, 30th April 1906). The Dipper clutch 5, along with various other clutches in Arbuthnott's collection, is noted as 'R Fortune', revealed in another entry to have the first name Riley.[72] Fortune's eggs came mainly from around Harrogate, but with a few from remoter parts of England, especially the Yorkshire-Westmorland border region. There are also a few eggs listed as 'R Fortune Collection' from as far afield as north Iceland and Turkey, possibly purchased by or given to Fortune rather than collected by him. Arbuthnott's notes do not record being out in the field with Fortune at any point, and most of the Fortune eggs were taken at earlier dates than Arbuthnott's field collecting.
Fairly often, Arbuthnott collected with 'Steward' (see for example, Dipper clutches 1, 2 and 3). There are also a few eggs from various European locations noted as having been taken by 'Steward', 'Dr. Steward', 'D. Steward FRCS' or 'Dr. E S Steward'. Cross-referencing with wider oological literature, this individual was almost certainly Edward Simmons Steward (1869-1954), ophthalmic surgeon and otolaryngologist who practised in Harrogate, and a highly enough respected egg-collector to merit an obituary in *OR* (Congreve 1954) and an individual entry in Cole and Trobe's biographical compendium (2000).[73] The identification of Arbuthnott's companion as E.S. Steward is reinforced by the fact that Hugh Arbuthnott was a qualified doctor and only a few years older than Steward, so they are likely to have mixed in the same social circles. Steward hence provides a link between the GM collections and the wider world of oology in the early twentieth century.

Arbuthnott senior's notes mostly adopt a matter-of-fact style, detailing the location of nests, clutch size and incubation, date and who took the eggs (and usually anyone else who was present). He did occasionally include more descriptive and reflective content, such as these musings on some Raven eggs found on a crag near Buttermere on 23 March 1908:

[72] 'Riley Fortune' is a name best spoken in a broad Yorkshire accent.
[73] Biographical information taken from the Royal College of Surgeons website: http://livesonline.rcseng.ac.uk/biogs/E005575b.htm (accessed on 6 March 2015). Some of Steward's Scottish collecting diaries have been published privately by Whitaker (Steward 1988).

> On crag about 200 yards nearer to Buttermere than Pillar Rake Crag where Steward took them with me last year ... Eggs small - The eggs laid last year were very blue + lightly marked - These eggs (7) are not so blue + are smaller - Do birds lay smaller eggs as they get older or has one of the old birds been shot + one of the new birds a young one?

At other times, such as with a partridge nest found near York (from which the partridge eggs were 'pinched 27/05/1905'), he reveals a playful (perhaps cruel) attitude to his quarry, noting that '[t]here were two pheasants [*sic*] eggs also in this nest. These we left to amuse the partridge.' As will be discussed below, there is also evidence of other intrusive tactics employed by Arbuthnott to remove birds from their eggs.

The children's notebooks are of a different quality, albeit still highly systematic in imitation of their father's notes, very different from Hay's more diary-like writing. Figure 4.7 shows a typical extract. The entry for clutch 2.4 reveals that the author of this notebook was John Arbuthnott :

> 2.4 Clutch of five, fresh found by John in bramble bush near small stream at Beaverdyke. 4.6.06. I found the nest while I was up a tree looking at a Missel thrushes nest. Hugh present.

Cross-referencing with Arbuthnott senior's notebook confirms a clutch of common thrush eggs taken on 4 June 1906 by 'John & Self'. John did not just collect with his father: 'Hugo and Keith' were present at the taking of Clutch 2.5 ('Hugo' perhaps being a nickname for the son Hugh, and Keith possibly a friend), and occasionally he also mentions brother Archie and sister Jean, as well as a few other names. Jean was a rare example of a female being involved in collecting (see Chapter 5).

The softback notebook is very sparsely populated, with just a few entries such as that shown in figure 4.9. It is not explicitly clear who wrote it, but it is likely to have also been by John Arbuthnott, or by one of his siblings: Jean, Hugh, Archibald or (less likely as he was not mentioned in either of the other notebooks) the youngest, Robert.[74] My transcription is as follows:

> 44 Erithacus rubecula – Redbreast
> 1) Clutch of five three fresh two very slightly incubated. Nest in bank about 1 foot from ground on Panal Rd nest found by Keith, Archie present, 5 [or 6]-4-07

[74] Robert Arbuthnott was the donor of the collection to GM.

2) Clutch of 5 fresh found by Kieth [*sic*], John present, nest on bank 2ft from ground on road to Lund House green and Beckwithshaw, 14-4-07.

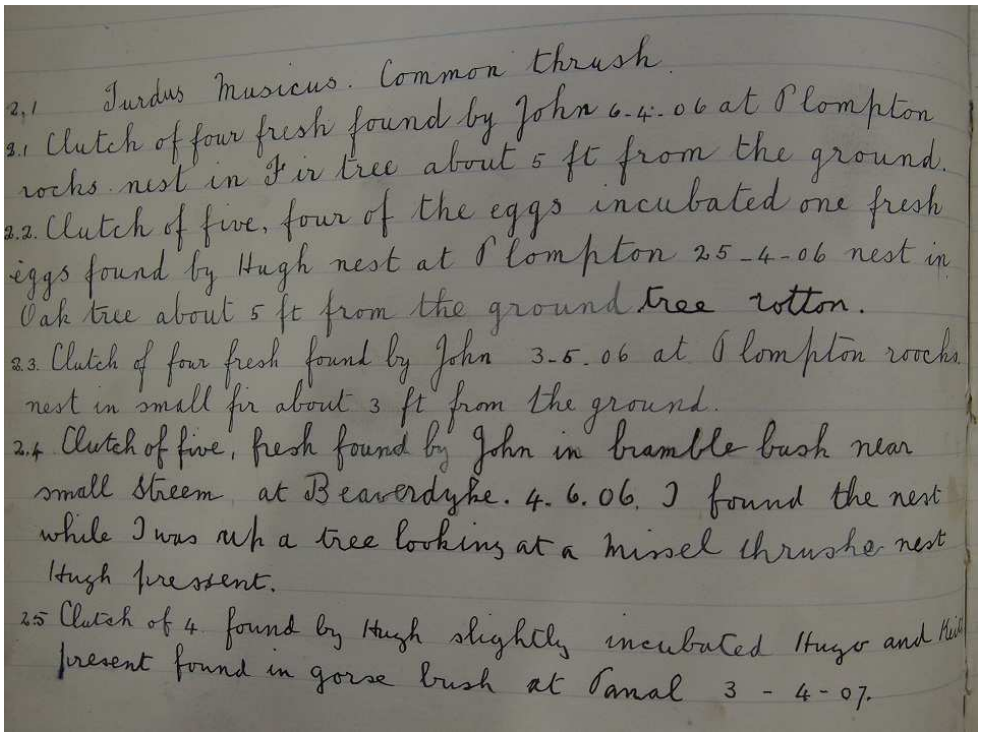

2.1 Turdus Musicus. Common thrush.
2.1 Clutch of four fresh found by John 6-4-06 at Plompton rocks nest in Fir tree about 5 ft from the ground.
2.2. Clutch of five, four of the eggs incubated one fresh eggs found by Hugh nest at Plompton 25-4-06 nest in Oak tree about 5 ft from the ground tree rotton.
2.3. Clutch of four fresh found by John 3-5-06 at Plompton rocks nest in small fir about 3 ft from the ground.
2.4 Clutch of five, fresh found by John in bramble bush near small streem at Beaverdyke. 4.6.06. I found the nest while I was up a tree looking at a missel thrushe nest Hugh present.
2.5 Clutch of 4 found by Hugh slightly incubated Hugo and Kieth present found in gorse bush at Canal 3 - 4 - 07.

Figure 4.7 Extract from Arbuthnott notebook (2) detailing common thrush clutches. (© CSG CIC Glasgow Museums Collection)

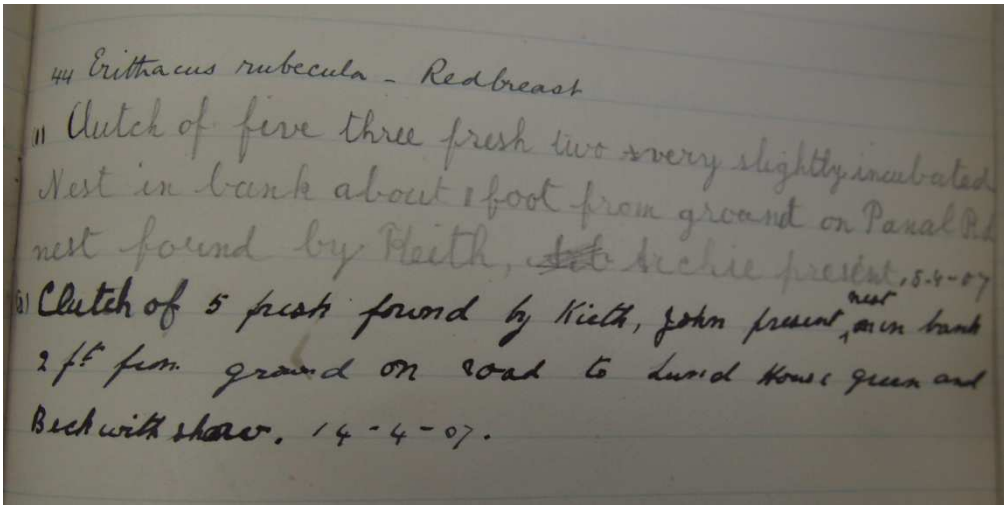

44 Erithacus rubecula - Redbreast
11 Clutch of five three fresh two very slightly incubated Nest in bank about 1 foot from ground on Canal Rd nest found by Kieth, Archie present, 15-4-07
61 Clutch of 5 fresh found by Kieth, John present, nest on bank 2 ft from ground on road to Lund House green and Beckwithshaw. 14-4-07.

Figure 4.8 Extract from Arbuthnott notebook (3) detailing redbreast (robin) clutches. (© CSG CIC Glasgow Museums Collection)

All three of the Arbuthnott notebooks held by GM reveal an approach to egg-collecting in the field as primarily a collaborative activity: between parents and their children, between siblings, and between friends (or at least fellow enthusiasts) both young and old.

The field collecting process: place, duration, weather and pitfalls

Having reviewed the three main sets of collectors' notebooks held by GM, attention can now turn to the process of collecting eggs out in the field, in which regard I will increasingly turn from the GM archive to published sources such as *OR* and instructional manuals. The first consideration was that of locating or selecting the field geographically. The three GM collectors all mainly collected near where they lived at the time, so the locale for most of their collecting was relatively fixed. Occasionally, forays were taken further afield when an opportunity arose, either for a day trip or a longer outing. These more distant destinations, such as the Galloway Hills for Roberston and the Lake District for Arbuthnott, were likely to have been chosen for their collecting potential, especially for species difficult to find nearer to home. Collectors with more time and money available went still further afield. Steward, who contributed eggs to Arbuthnott's collection, travelled to Hungary, Spain and Holland. For these collectors, dedicated research would have been necessary to identify a worthwhile area to visit, and in this respect'Nemo' (1930: 33) suggested that:

> Perhaps geography, in its broadest sense, is one of the greatest helps to the oologist ... Even in so small an area as an English County the main features and general configuration have a profound bearing on the distribution of the bird life, and what is true of so small an area is very much more to the point in the case of larger regions that are far more diversified.

The notebooks held at GM reveal a wide variety of habitats and types of landscape, including: agricultural land; gardens; moorland; seashores; cliffs (both inland and by the sea); rivers and streams; lakes, reservoirs and ponds; bogs and marshes; and woods and forests. However, it was not only rural or 'natural' locations that yielded eggs, for nests could also be found on or in buildings, while Arbuthnott and Steward even took ringed plover eggs from the top of slag heaps by the sea shore at Carnforth near Lancashire (21 April 1907).

Assuming that the collector had settled on a particular locality for his oological quest, whether near or far from home, his aim when out in the field was to find some eggs, and for most species of birds this meant finding nests.[75] As well as being an oologist, a collector also had to be a competent practical 'nidologist' or student of nests. He would

[75] Some species of birds, such as razorbills and guillemots, do not lay eggs in nests, but instead lay them on sea cliff ledges inaccessible to most potential predators (or at least those that cannot fly).

hope to find a nest before the eggs had hatched into nestlings either nidifugous or nidiculous (respectively, the terminology for leaving the nest quickly or staying in it for a long time after hatching).[76]

A second major consideration for collectors was not just where but when to collect, which was constrained by seasonality and by how much time they had available to spend searching for nests. One habit held in common by the GM collectors was to be out hunting very often in the nesting season (April to mid-June). In 1949, Hay's notes have entries for 18 days in April and 16 days in May, while in 1895 Robertson recorded being out birdwatching or collecting on 57 days in April-June, including an impressive 24 days in April. In 1896 and 1897 his activity ratio dropped off slightly during the main collecting months to 41 days each year, although over those whole years he reported on more dates than in 1895. On average over the three year period, 1895-1897, he made notes for 51% of days April-June, and 24% of the days over the course of the calendar year. These figures indicate that egg-collecting was not simply a weekend pursuit for Hay or Robertson. They went out as often as they could, likely snatching pockets of free time out of the daily routine, and they had to be in the fortunate position of having time available in the first place. It is hence no coincidence that many serious egg-collectors were of independent wealth, freeing them of the need to spend time working. Being out frequently maximised the chances of finding nests and eggs at the optimal stage of development, when a bird completed laying its clutch, but before the eggs had time to incubate to the point where they would be difficult to blow (see Chapter 5). Although Hay was in the habit of revisiting nests over a short space of time to check on progress, even then he could be beaten to a set of eggs by a rival collector. The more a collector was out searching for and watching nests, the greater the knowledge that he gained of nearby nesting sites, especially after a few years of activity. For example, on 9th April 1949, Hay '[c]ollected a Dipper in 6 from under a bridge in Doonfoot. Had had it marked. Nests there every year.' Thus a collector's explorations could become more efficiently targeted.

The GM collectors' notes only occasionally make mention of weather conditions, mainly when they were particularly clement or inclement. Hay found that '[i]t was very hot' on 17

[76] Maps were a invaluable geographical tool for finding and recording the locations of nests. Once egg-collecting had been made illegal, they could also be incriminating. Peter Robinson recounts, during his time as Senior Investigations Officer for the RSPB, finding Ordnance Survey and sketch maps marked with Scottish nesting sites in the house of a suspected collector, 'Wilson' (probably Colin Watson). The collector pleaded guilty and the maps were taken by the RSPB (Robinson 1982). No maps are found in the GM notebooks or were donated along with the egg collections.

April 1949, whereas '[i]t was raining like hell the whole time' on 22-23 April. Characteristically, Robertson was more precise with descriptions of unusual weather descriptions:

> Light N.E. Breeze, very hot during the day, bright sunshine, thermometer as high as 62° in shade. (14 April 1895)

It is perhaps surprising that weather conditions were not reported more often and in greater detail, given that, when outside searching for nests, collectors were entirely exposed to the elements. Broader weather patterns might also affect bird behaviour and nesting times, notably if, for example, there was a prolonged cold spell late into the year. In practical nesting terms, Black (1929: 8) claimed that showery days gave 'a splendid chance for getting on terms with the shy birds, as no bird likes to leave her eggs to get wet', while '[s]now is even better'.

Out in the field, the chief assets for a collector in finding nests were personal attributes such as:

> ... an active and healthy body, a sharp eye, a quick ear, a good share of pluck, and above all inexhaustible patience and perseverance. All of these qualities, though to a certain extent indispensable from the outset to the young collector, are as much acquired by, as necessary to, the study of oology. (Christy 1888: 99-100)

These are the very assets exhibited by the GM collectors: when climbing trees, collecting from cliffs and even (in Hay's case) falling down a well; carefully watching and revisiting potential nesting sites; and going out collecting day after day, in all manner of weather conditions. In the following sections, different parts of the process of finding, reaching and successfully taking eggs will be considered, in each of which these physical and behavioural attributes proved indispensable.

Finding nests

The most obvious way of finding nests was simply to search in places where they were most likely to be found: trees, bushes, fields, hedges, walls, holes and crevices of various types, or other locations depending on the species (Figure 4.9). Some specialists advised looking out for birds rather than nests, as the presence of a bird was indicative of a nearby

nest, rather than a less directed search of all potential sites in a given area, especially since nests were often so well camouflaged. Having been alerted to a likely find, the collector should then 'conceal one's self within sight of the supposed nest, and ... watch carefully until the parent birds betray the precise situation of their treasure, by either visiting or leaving it' (Christy 1888: 106).[77] This method would also allow the collector to build up knowledge of birds' breeding behaviour, and give the satisfaction of watching the birds blithely unaware of one's presence (Black 1929: 107). Hay, however, looked mainly for nests:

> This was because my nesting hours were limited, and where I went was quite a long walk from my house. I used to look for nests absolutely everywhere. It was the only way, and proved very fruitful.

He did also have 'two nesting boxes up, one at Ayr and the other at Uppingham' (useful devices for encouraging some species to yield, such as tits). Neither Robertson nor Arbuthnott described their approach to nesting, but Robertson's careful observation of birds would have proved useful in alerting him to potential nesting sites nearby.

Figure 4.9 F.C. Hiden with a marsh warbler's nest in the Avon valley near Evesham (Hiden 1930: 14-15). (Material sourced from David Clugston)

[77] Note the use and implications of the description 'treasure', suggesting wealth to be acquired.

Bird calls also helped to alert a collector to a nearby nest, so being able to identify the sounds of different species was useful knowledge. Robertson appears to have been particularly adept. His notes describe various different sounds, such as 'Snipe drumming piping &c.' on 2 April 1895. Sometimes he merely mentions hearing a particular bird, but occasionally attempts to describe these calls in quite inventive ways:

> Heard & saw the Garden Warbler in Upper Pollok policies. There seemed to be young ones about as the old birds were emitting their clicking notes like two pebbles being struck against each other. (23 June 1895)

On other occasions, Robertson appears to fit bird calls into a taxonomy comparable to the visual markers used by birdwatchers to distinguish species, such as on 19 September 1896:

> Two Curlew Sandpipers on Glen dam. There [*sic*] note was a pleasant peep rather unlike the rather harsh note of the Dunlin. Sometimes it was not unlike the cheep of a Pied Wagtail but when on the wing it was louder and like a long drawn out threep – the thr much trilled.

It is intriguing to imagine what this peep, cheep and threep sounded like. He also tried phonically to write down the sounds heard:

> Heard the Sheld drake emit a note which was somewhat like a man's laugh – "hah hah hah" – at others times resembling the "tittering" of a Whimbrel. (5 March 1897)

Inadvertently entertaining for the reader, such descriptions helped Robertson to build up knowledge about the indentifying notes of different species, which could later alert him to the presence of a particular species in his vicinity.

In contrast to *listening to* sounds, the collector might also be able to *make* disturbances of sound to help to identify a nesting site. For example, Congreve (1927: 43) claimed 'that I always carry a small and noisy pistol which is amazingly effective in putting a large bird off a well-hidden nest on a cliff-face'.[78] Carrying a pistol was an unusual tactic, but collectors often used other pieces of equipment to aid their searches. One of the simplest and most useful was a long, stiff stick, which could be used in various ways, but chiefly for poking about in places just out of reach, such as the middle of a clump of nettles, to reveal

[78] William Maitland Congreve was a key figure in twentieth-century oology, in particular through his editorship of and contributions to *OR*, cited at numerous times in this thesis. See Appendix 2 for brief biographical information.

nests otherwise invisible.[79] A stick was helpful for pushing foliage aside to reveal nests hidden behind, and, if hooked, it could be used to pull down a branch containing a nest that was just out of reach or to assist in climbing up on to a sturdier branch (e.g. Christy 1888: 103). A mirror could also be attached to the end of the stick, to enable the collector to peer into likely nooks and crannies. Hay had a specialist 'telescopic mirror' purchased from Watkins and Doncaster in London, combining a collapsible stick and mirror into one easily portable package: 'At first I did not realize how useful this mirror would be, but later on I could never do without it'.[80]

Instructional books (e.g. Black 1929; Davis 1907) recommended the use of binoculars, both for watching birds that might be nesting and for assisting in species identification more accurately than using the naked eye. Davis (1907:146) also advised having a 'good pair of leather gloves; if possible, those that come up well over the wrists', to avoid scratches from thorny briars. For finding the nests of birds that built on the ground, Christy (1888: 106-107) recommended dragging a rope along the ground, aided by a companion at the other end, to flush a bird from the nest, which could then be found somewhere close to the rope.

Reaching nests

With a nest located, the next step was getting the eggs. Hedgerow nests were fairly easily accessible, but many others less so, perhaps being high up in a tree or cliff, in thick vegetation or even islanded by water. Climbing abilities were especially prized among collectors, since many nests were located high up in trees, as can be seen from Hay's tables of species listing the heights at which nests were found (Figure 4.2). Given the necessity of climbing in egg-collecting practice and lore, it merits detailed consideration. The simplest method of climbing a tree was using hands and legs. Different types of tree offered varying challenges, depending on factors such as the thickness of the trunk, the roughness of the bark and the strength and availability of side branches. The height of the collector was also important. Adam Watson, raised in Turriff in Aberdeenshire, describes how, being tall, he could reach high branches (if available), whereas his shorter friend, Norman Sim, would simply wrap

[79] As described by Black (1929: 2).
[80] See Chapter 6 for a discussion of this company.

himself round a trunk and move his legs in unison. Sim was particularly good at crawling horizontally along beech branches to reach rooks' nests at the end, ignoring the prospect of a potentially fatal fall (Watson 2011: 30). Thin trees could also prove problematic, as for Arbuthnott with Steward at Askham Bogs near York: 'Nest in slender birch about 13 feet from ground, tree so thin as to be unclimbable' (19th April 1905).

As well as one's own limbs, climbing irons were another option for sturdier trees. They were iron spikes that could be attached to the lower legs and driven into the bark of a tree, and Figure 4.10 provides an illustration and explanation:

EGGS, COLLECTING AND PRESERVING.—Eggs of various birds may be sought for in their seasons in the localities best suited to the several species. But so much depends upon special training or aptitude in the collecting of birds' eggs, that a detailed description of localities where to seek, and how to find, eggs, is hardly necessary, in the pages of this work, further than to remark that a pair of "climbing irons" are requisite for those individuals who do not possess the agility of a cat or of a schoolboy.

Climbing Irons (see Fig. 37), to fit the foot and leg, are best made of wrought iron with a welding of finely-tempered steel from C to DE, to form the claw used when climbing. To affix them to the leg, the foot is placed as in a stirrup from C to B, the claw ED pointing inward. A strap should now be passed through a slot or square hole punched in the metal between C and D (not shown in the figure), and laced under and across the foot to and through the loop shown between B and A at *a*, thus keeping the foot itself tightly fixed. Another strap passes through the loop at the top where marked A, and is strapped round the calf of the leg, keeping all below the knee rigid and secure. When climbing, the hands clasp the tree in the usual manner, and the side of the foot is struck smartly against the trunk, to cause the claw to penetrate. The climber now rests on this, and strikes the claw of the other iron in, on the other side, higher up, and so on alternately.

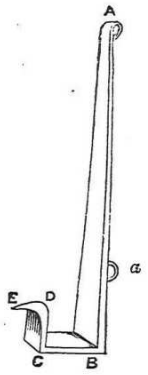


FIG. 37.—CLIMBING IRON.

Figure 4.10 Diagram and description of climbing irons (Browne n.d.: 225).

Hay owned a pair of irons despite his father's disapproval, and found them 'essential if I was going to make my egg collecting a success', as with one of his 'four worthy finds' from a day at Willoxton, Ayrshire: 'A carrion crow in 5 with one pure blue. It was a good height up and I had to use my irons: on 24/4/50'.

Following a brush with mortality in a motorcycle accident (in addition to falling down a well some years earlier), Hay was more circumspect about climbing trees:

> Sparrow Hawks. Got one with Christison [?] from a small wood near Broomhill. She had 5. Then I got 2 at D.C's, & if I hadn't funked going up another tree I might have got another but I needed the irons & my knee still bothers me & makes me think twice. (1952)

Not all collectors were convinced of the merits of climbing irons and Black (1929: 19) found that:

> I may have been unfortunate in those I have tried, but they certainly were much better for telegraph poles than for trees with bark on, not to mention a nasty wound in the leg I gave myself with one of them. Also I don't think they are very safe on a really big tree, and you should be able to manage a moderate one without them.

Perhaps he had tried irons of inferior quality, as Congreve (1927: 41) stressed the difficulty of obtaining well-made ones with 'finely tapered points'. An alternative to their use for some nests was to climb an easier nearby tree and then swing across to the nest: '[t]his trick is not hard, but needs some judgement in letting go of the first tree' (Black 1929: 19). Black also warned against the dangers of dead and rotten branches, which he claimed should never be trusted. With this in mind, one might question the wisdom of W. Hobson or his companion reaching across to a Corsican Nuthatch nest, 60 feet up a dead Larico pine (*OR* August 1964: 23), a precarious act captured photographically in Figure 4.11.

Attached by a rope, the figure is just discernible reaching up and across towards the trunk from his waist (centre left). To get so high in the first place, it is unlikely that he would have used irons, since they were principally of use when the trunk was narrow enough to 'hug' and sink the spikes into its opposite side. He may instead have used a method similar to that described by Christy (1888: 104):

> ... I have sometimes ascended difficult trees by tying a loop at one end of my rope, and throwing it over a strong branch. If the feet then be placed in the loop, and the other end of the rope be held in the hands (the arms being placed round the looped half of the rope) it is easy, by raising the feet and pulling simultaneously with the hands, to rise gradually and with the greatest facility, to the branch over which the rope has been thrown.[81]

In the case of the photograph, it looks like the climber has the rope round his waist (which would risk asphyxiation if he slipped unexpectedly) and has reached a branch slightly

[81] Congreve (1927: 41-42) described a similar method but stressed more strongly the importance of the companion in holding the rope at all times in case the climber slipped.

below the one around which the rope was looped, then using an assistant on the ground to hold the other end so as to allow the climber to edge out along the branch to the nest.[82]

Figure has been removed due to Copyright restrictions.

Figure 4.11 W. Hobson or companion reaching a Corsican Nuthatch nest (Hobson 1964: 23). (Material sourced from David Clugston)

Ropes were also indispensable for reaching nests high up cliffs, which is where many birds of prey and seabirds prefer to nest. Figure 4.12 shows Wright M. Pierce of California 'half-way down on the face of a 600-feet granite cliff, looking over into space' (*OR* June 1927: 34). In this type of situation, the collector would be lowered from the top of the cliff by his companions, and then hoisted back up, or lowered down further to safe ground if this was feasible (not usually so in the case of sea cliffs). Alternatively, if a nest was accessible from below, it might be reached by climbing up to it, in which case the collector would have to reach it under their own steam, and then achieve the even more difficult task of climbing down again. Climbing ability or 'cragsmanship' was therefore another highly prized skill, as evidenced by some of the obituaries in the *OR*, such as that of John Walpole

[82] The article authors told the *OR*'s editors that without the rope 'the nest site could not have been reached' (*ibid*.: 25).

Bond which describes him as 'a magnificent climber' (E.C.L.S. 1958: 29). [83] As well as egg collectors who climbed by necessity, there were also some rock climbers who collected eggs, such as the Lake District quarryman and pioneer of hard new climbing routes, Jim Birkett (Cole and Trobe 2000: 17-18).[84] Among the GM collectors, Arbuthnott notes how he '[l]et Steward down with a rope' to obtain a dipper clutch (see Figure 4.6), and later employed the same method to reach a peregrine nest on a cliff near the top of Hindscarth in the Lake District (21 April 1905), when '[t]he birds screamed and flew around while the eggs were being taken'.[85] The hubbub could prove a dangerous distraction. The challenges of cliff-scaling in pursuit of eggs meant that the task was sometimes delegated to others, who could include agile fellow-collectors and occasionally locals for whom it was their livelihood (see *Excursus*: 'Climmers' below).

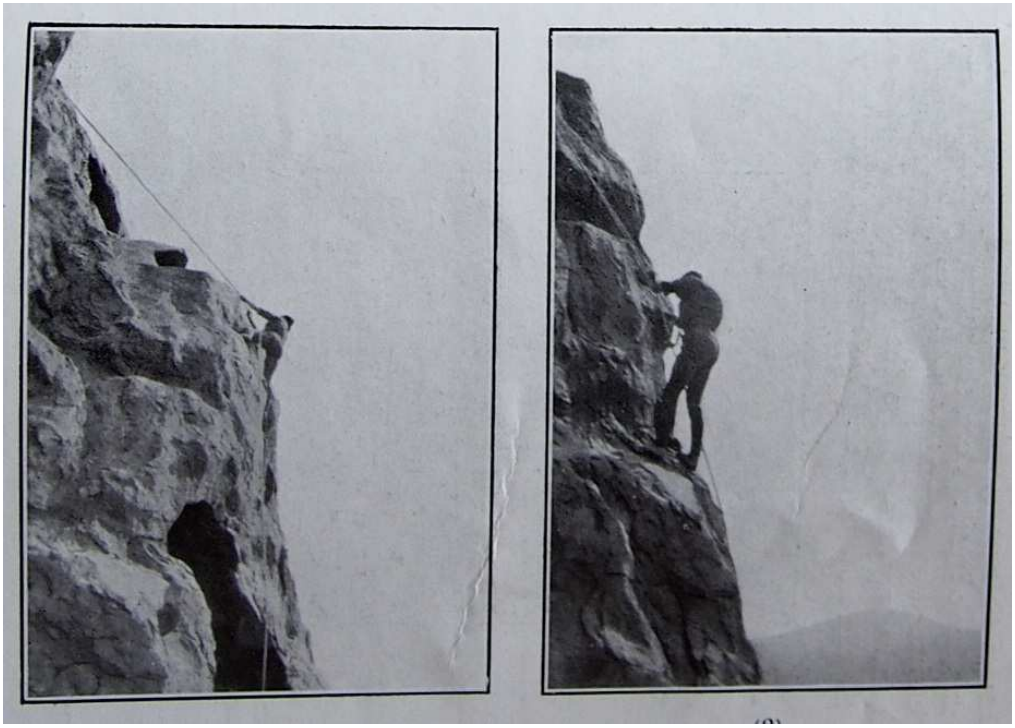


Figure 4.12 Wright M. Pierce descending a 600 foot cliff in California to reach the nest of a golden eagle. (Pierce 1927: 35. Material sourced from David Clugston)

Unsurprisingly, accidents happened. Sometimes the extent of the damage of a fall was merely ripped trousers, as was the case for 'H.L.C.' (Cochrane 1950: 24) in pursuit of

[83] 'E.C.L.S.' was Clive Simson, author of *A Bird Overhead* (1966) which lauded various aspects of the field-study of birds. See Appendix 2 for brief biographical notes on Walpole-Bond.
[84] Birkett is one of the few working-class collectors included in the Cole and Trobe (2000) survey of major twentieth-century collectors, although the likely bias towards wealthier collectors in that work must be borne in mind (see Chapter 5 for further discussion). A number of other distinguished rock-climbers started out egg-collecting, before realising that they preferred the climbing to the collecting (e.g. Cleasby 1982).
[85] Cole and Trobe (2000: 242) note that Steward was an 'expert cragsman'.

yellow vented bulbul eggs in Lebanon.[86] Others were less fortunate, such as Jourdain, who received a permanent scar across his forehead after being 'partially scalped, when he borrowed an old rope from a Scottish shepherd in order to investigate the nest of a Golden Eagle ... The rope broke and his life was saved by falling into a tree' ('Sea Pie' 1967: 49-50). This 'war wound' may have added to Jourdain's already considerable gravitas and reputation among other oologists, 'noble empowering stigmata' (Heffernan 2001: 219) showing evidence of his commitment to oology.[87] More rarely, oologists died in pursuit of eggs. The obituary for Phyl Wyer reports that he was killed while trying to free 'an inadequate and frayed rope that jammed and was too short' as he descended a cliff in Sicily (*OR* 1964b: 46). Probably in response, the same *OR* (1964a) issue also contained an article on 'Cliff-scaling ropes with safety', which recommended the use of nylon ropes rather than the hemp ropes still used by many collectors, which deteriorated easily.

Trees and cliffs formed two important types of nesting site, but there were plenty of others. Some birds nested in or by water, and Arbuthnott noted taking some moorhen eggs in Lincolnshire on 9 May 1904 from '[a]mong rushes in pond. Got to by wading'. Of course, many other nests were in more easily accessible sites, such as grass fields or low enough in trees or on walls that eggs could be taken from the ground, as recorded numerous times in Arbuthnott's notes (e.g. common redshank 'on grass field', Laughton, Lincolnshire, 9 May 1904; wren '[n]est in low bush', near York, 27 May 1905). These more comfortable 'takes' may be under-represented more widely in the written record, if they were considered so commonplace as not to be worth comment, compared with the greater cachet unsurprisingly placed on difficult-to-attain clutches.

Excursus*: 'climmers'*

As well as recreational egg-collectors, coastal communities used to collect the eggs of sea-birds for sustenance and to sell. For example, the inhabitants of St Kilda in the Atlantic west of the Outer Hebrides had a community to a large extent built around the harvesting

[86] 'H.L.C.' was Henry Lake Cochrane, an ex-Navy Captain born in Ireland (Cole and Trobe 2000). Any family links to the Cochrane whose eggs are held at GM (see Chapter 2) have not been investigated.
[87] Jourdain was undoubtedly the foremost twentieth-century British egg collector in terms of his knowledge of oology and ornithology, activity levels and reputation. Indeed, his standing was such that the self-styled national body of oology, the British Oological Association, changed its name to the Jourdain Society after his death in 1940 (see Chapter 6). Further brief biographical information about Jourdain is provided in Appendix 2.

of sea birds and their eggs. Also well known were the ‘climmers’ who worked on the chalk cliffs oEast Yorkshire around Flamborough and Bempton.

Recreational egg-collectors took advantage of the climmers’ bravery and expertise to obtain sea-bird eggs that were otherwise inaccessible to them. For example, Birkhead (2016) describes the obsession of F.G. Lupton with guillemot eggs, which are highly varied in pattern to enable individual birds to recognise their own eggs on crowded cliff ledges (guillemots do not build nests). Some individual birds were known to lay particularly distinctive eggs on the same patch of cliff year after year, and collectors such as Lupton would await the climmers collecting these eggs, and pay high prices for them. G.N. Carter, another collector, reported spending a week with the climmers, during which he noted changes in the relative populations of different species since his last visit in 1919, and more oil on the water (Carter 1924).

Figure 4.13 Climmers at Flamborough Head, East Yorkshire. (http://www.flamboroughheadsac.org.uk/storyboards/seabirds/iframe.php?StoryID=1 Downloaded 2 April 2015. Photo by Unknown c/o Geoff Wilson)

Taking and transporting eggs

Once a nest had been reached, the eggs needed to be removed intact. This operation could sometimes require ejecting the sitting bird, who might understandably be reluctant to leave.

A feature of Arbuthnott's and Hay's notes respectively (and to a lesser extent Roberston's too) is the preparedness to disturb birds in order to reach their eggs. Arbuthnott reports of a magpie nest:

> The bird sat very hard - The boy who was with us pelted it with stones from a few feet away and it was only when he landed a large stone within a few inches of its head hitting the nest that the old bird flew off!! Never saw a bird sit so tight. Found a sucked grouse egg at foot of tree!! Nest found by me, taken by Steward with rope around his waste [*sic*]. (Middelmore, 6 May 1905)

Later the group came across a kingfisher's nest in a bank of Ripley Castle Beck:

> Nest in bank full length of arm. Failed to poke bird off nest with a walking stick + though it was not sitting. Bird came off nest when we hammered the bank just over the nest. Taken by Self + Steward. (12 May 1905)

Arbuthnott also took a cavalier attitude to property, as well as to the birds, when he reached the nest of a common swift in the eaves of an old mill building by 'breaking through the rafters from the inside' (10 June 1905). These entries act as vivid reminders that collectors were disturbing the lives of the birds that they targeted, at least in the short term. Whether this affected the birds in the long term, in terms of distress and the ability to re-lay another set (or sets) of eggs, was a bone of contention between oologists and their opponents, discussed further in Chapter 6.

Hay's notes describe shaking a birch tree to dislodge two tits that were nesting in it, and the quote of his which opened the Introduction to this thesis (Chapter 1) reveals similarly intrusive tactics of striking trees and even cutting into them to reach nests: 'I struck the bottom of the tree and out flew Mrs. Nuthatch! I le[a]pt with joy, and lost no time in forcing my way into the nest.' In *OR*, Congreve (1927: 44-45) described a very labour-intensive method of obtaining woodpecker eggs, involving estimating the depth of the hole with a stick, drilling and sawing an equilateral triangle near the bottom, and extracting the eggs. This kind of intrusiveness would be anathema to most birdwatchers today. Occasionally collectors suffered a little for their poking about into nests: the day after Robertson had stuck his arm into a hole 'very slimy and dirty with droppings' to reach a kingfisher's nest (on 3 April 1895), he found a rash 'of red spots like some infectious diseases' on his arm.

Once a collector was in striking distance of the nest, and any parent birds had been scared

off or forcibly evicted, he then needed to take the egg or clutch. If a nest could be reached at close quarters, the eggs would be taken by hand, but this course of action was not always possible. The nest might be secreted in a spiky bush, or just out of reach at the end of a branch even after scaling the main body of a tree. In this type of situation, a spoon or forked stick could be useful for scooping up the eggs, but an egg-scoop was more versatile (Figure 4.14).[88] The scoop consisted of a bendable but otherwise stiff piece of iron wire, which could be bent 'into a loop at one end for a handle, and into a flat watch-spring-like coil at the other. This coil may easily be made cup-shaped with the fingers' (Christy 1888: 101). Extra coils could be added or removed depending on the size of eggs, and the whole contraption could be coiled up and put in one's pocket after use. On a data card, Hay recorded needing his scoop for raven eggs on a cliff near Tynron, 22 March 1953. Sophisticated manufactured versions were also available, such as Watkins and Doncaster's 'brass ferrules which fit various-sized net bags or a pivoted looking-glass' (Congreve 1927: 45), attachable to a stick of appropriate length for the situation.

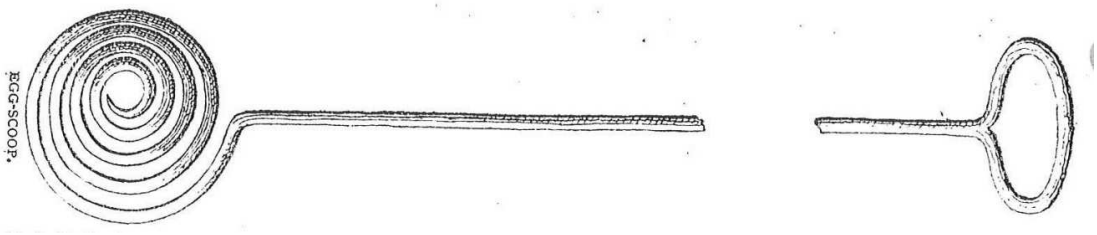


Figure 4.14 Egg scoop. The spiral part would be bowl-shaped in profile. (Christy 1888: 100; rotated 90° from original)

The taking of the full clutch or set of eggs rather than just one egg was one of the practices marking out the serious collector from the 'dabbler': the clutch, rather than the individual egg, was arguably the fundamental unit of oology. Hay described his own oological coming of age in 1948:

> I started collecting eggs at the age of twelve. I was told, or rather encouraged only to collect them in one's or at the most, two of each.
>
> This went on for 3 years until I saw "John Brown's" collection. The lad had been collecting for many years and had got a very nice local collection. Then he advised me to start collecting in clutches. I had always wanted to, so as it was early in the spring I decided that from then on I would collect clutches, and nothing but.

[88] Use of such tools continues to this day. William Beaton, a retired solicitor, was convicted on 14th June 2016 for taking eggs in Orkney in the preceding weeks, after being spotted collecting eggs on a beach. He was found to have eggs and an 'an extending spoon, used to collect eggs' in his car. (Campbell 2016: no page number)

Arbuthnott also took whole sets and, like Hay, his notes list the number of eggs in each clutch. Robertson noted the number of eggs in each clutch found, but on at least one occasion he recorded only taking one egg (from a clutch of four long-eared owl in Mains Wood on 18 April 1895). Elsewhere, he recorded taking three carrion crow eggs (near Loch Fad on Bute, on 6 April 1896), so he did not use one approach entirely consistently.

Oologists justified the practice of taking whole clutches on a number of grounds. Firstly, a complete clutch was claimed to have greater scientific value than taking a single egg, as '[a] clutch sometimes has a peculiarity or individuality of its own, which is not detected when eggs are mixed promiscuously' (Christy 1888: 109). Secondly, taking whole clutches was argued to be less deleterious to bird populations than taking single eggs, the reason being that the bird might continue to sit on a depleted clutch, reducing the potential number of viable chicks, or might notice something amiss and abandon the nest, in which case the collector may as well have taken the whole clutch.[89] The key assumption, which some collectors claimed to have proven by systematic observation, was that most birds would soon re-lay a replacement clutch. This central issue will be revisited in Chapter 6 when discussing ethical debates about egg-collecting.

As well as simply taking the eggs, a collector had to identify the species, following Newton's dictum that 'in all places and at all times, an egg-collector should recollect that identification and authentication are his main objects, to attain which no trouble should be too laborious, no care too great' (quoted Christy 1888: 108). For common species, the eggs were readily identifiable without further evidence, at least by experienced collectors, but for rarer finds, it was considered essential to identify the parent bird. Some commentators (e.g. Coues 1890; Christy 1888) advised going so far as to shoot or snare the parent, to ensure accurate identification back at home, although this was less popular among later commentators.[90] A less drastic measure was to note down carefully any observed details of the birds that could later be cross-referred with book descriptions or bird skins held in museums (Congreve 1927: 40). To record this information, a notebook was a crucial piece of equipment for the field collector, which could also be used to note down other items of data such as the location and site of the nest, time and date, weather conditions and

[89] Taking a partial set was described as 'a most fruitful cause for desertion' in an *OR* book review criticising the author, E.W. Hendy, for recommending taking only one egg per clutch (OR 1928b: 109).
[90] Congreve, however, did recommend that '[a]s a last resort a small gun can be carried for use in securing some of the smaller species' (1927: 40).

companions.

Given the importance of species identification, ideally by seeing the parent, the most dedicated collectors insisted on finding a nest *in situ*. Local residents were useful sources of information about rare species in the vicinity, sometimes ready to lead a collector to a potential site, but the collector was always urged to visit a nesting site himself, since '[u]neducated natives, even when perfectly honest (which all are not), should never be trusted to correctly identify any eggs' (Christy 1888: 107). Some collectors were even more particular, such as Algernon Tayler, who 'always insisted that, except in the most extreme circumstances, he should take the clutch with his own hands' (Cole and Trobe 2000: 253). As well as scientific validation, Black (1929: 25) suggested another motive for seeing the nest, and indeed for field collecting more generally:

> Every egg in your collection should remind you of the nest it came from, the bird that laid it, the search for it, the finding of it, and all sorts of pleasant things.

This idea of the collection as a repository for memory is a theme to be revisited in subsequent chapters.

Having finally obtained his prize, the collector needed a portable receptacle for taking home the eggs intact. Most collectors carried eggs whole, 'blowing' them (emptying out the insides) once in the safety of their own study.[91] Christy (1888: 109-110) advised wrapping each egg in plenty of cotton wool and then soft paper, packing them (tightly, not loosely) in a collecting box kept inside a field-bag, and he cautioned: 'take care not to forget that it is there, or at the end of the day you may find the whole of your labour wasted'. The GM collectors did not generally record what they used, although Hay, with some melodrama, bemoaned 'the tragedy of a life-time' in 1951 when 'I had got the five beauties in my cap & was walking down to the lodge from the Coo Craig when I slipped & down went the eggs. 1 smashed 1 dented!' It is not recorded whether this was his usual method of egg transportation, or an impromptu one used for the want of tailor-made equipment.

Collectors also used various methods of transportation to visit different nesting sites. Walking was by far the most important of these, and would need to be resorted to once a

[91] See 'The Individual Collection' for a discussion of egg-blowing. Skilled collectors might blow the eggs out in the field, especially on extended trips, as the insides became addled (and very smelly) if not emptied quickly.

particular area had been reached even if the collector had used other means to arrive from further afield. Robertson's notes mainly record activity in an area south of Glasgow traversable on foot, but with occasional trips further afield that must have been reached by other means. The exact mode of transport is not usually recorded, but he does record going on a walk from Cleghorn Station in Lanarkshire (8 June 1895), which implies that he took the train. In 1951 Hay records 'having had a motor bicycle crash' which prevented him from collecting a likely five clutch of great crested grebe eggs from Barnshean Loch. In the wider oological literature, difficulties of transport, especially overseas, were occasionally disclosed. For example, Congreve reminisces how on a trip to Spitsbergen, he was tasked by Jourdain with fitting an engine to a rowing boat, despite having no relevant experience and the spark plugs being defective. They abandoned the craft 'when we realised that it was suicide to use our frail boat except in a windless calm' (Congreve 1967: 51-52). The reporting of these types of transport travail contributes to the wider celebration of difficulty and derring-do in oological literature.

Solo and accompanied collecting

Egg-collecting was a pursuit which could be undertaken alone or with one or more companions. A variety of approaches were used by the GM collectors, through choice or necessity. In three years of notes from 1895 to 1897, Robertson records having a companion (unnamed) only on one date (27 April 1895) and then only indirectly, writing that '[w]e observed the sandpiper frequently...'. This does not mean that he definitely did not have companions on other occasions, but given the 'quiet' tone of the diary it would not be surprising if he was mainly a solo collector.[92] Hay went about his collecting both alone and in company. When in Ayrshire he often went out with Brown (possibly the 'John Brown' who had encouraged him to take full clutches), with Cross from Otterden, or one of Cross's worker entourage such as Davey Reid. Hay especially relied on Cross or Reid to help him find the eggs of ravens and birds of prey nesting in more inaccessible locations such as the remote valleys of Carrick and Dumfriesshire. On many other occasions, however, including most of his collecting exploits when at Uppingham School, Hay's notes do not mention companions, suggesting that on these occasions he was alone, possibly competing with some of his school colleagues.

[92] Robertson does often record interactions with local people, who told him about notable or recent sightings (see below).

The notes of Arbuthnott senior confirm a preference for companionable collecting, often with Steward, and occasionally with others named as Jenyns or Wade. Other times were for collecting with the family, such as 'Missel-Thrush' eggs in Forest Moor Road, Harrogate, on 13 April 1906: '[t]aken by John. Hughie and I came with him.' Elsewhere a 'Daisy' is mentioned as a collecting companion, a name that does not correspond to any of his surviving children at the time, or his wife Marianne, so perhaps it was a nickname or indicates another local child or woman.. The two notebooks kept by the Arbuthnott children indicate they did a lot of collecting together, as well as with their father.[93]

Collecting with others had some advantages. More pairs of eyes could help in spotting nests, or birds that might lead to them. More complicated methods of finding and reaching nests as discussed above, such as being lowered down a cliff, required at least one companion. Black (1929: 16) also suggested that a friend was useful for confusing birds into revealing their whereabouts: if two people turned up in a likely spot at the same time, and one left shortly afterwards, '[t]he birds will watch him safely off the premises, forget all about you, and carry on as if they had the whole place to themselves. They seem to have no head for mathematics, and think that 2 – 1 = 0.' As much as any practical advantages, however, collecting with others was simply for some a more enjoyably sociable countryside pursuit, especially given the long and patient labours of watching, searching and listening. Combining forces made strategic sense on further flung trips, when logistics and costs could prove prohibitive for the solo collector, and it is known that Steward went on nesting trips to destinations such as Norway with McNeile (1934) and Romania with Congreve (1938).[94]

Company could also bring with it certain disadvantages. In particular, birds were more likely to keep a low profile if there was a buzz of conversation carrying on. If eggs were successfully taken, there was another vexed question that did not arise for the solo collector: who had the ultimate claim of possession? A particular find could well be a matter of chance: one's companion(s) might have just as easily found it, had their luck been in, or quite conceivably collectors might see a nest at the same time. Should there be priority for the collector whose patient research and years of experience led them to

[93] It is quite confusing trying to work out exactly who was present much of the time. though, as 'Hugh' sometimes appears to refer to their father and sometimes to the son, who was also known as 'Hughie', as well probably as 'Hugo' as discussed above.
[94] Information taken from Cole and Trobe 2000: 242.

suggest this locale in the first place, and who had designs on a specific species? In a piece entitled 'The Division of the Spoils', Congreve attempted a code of conduct for egg allocation, so as to avoid such potentially 'friendship-destroying' (1946a: 24) pitfalls. He recommended setting aside any previously earmarked clutches (agreed at the outset), laying out all the remaining clutches by species, tossing a coin to decide who gets to choose first, and then letting each collector select in turn. His added proviso was that, once a collector had a chosen a clutch of a species with a round number of clutches on the table, the remaining clutches of this species then had to be chosen by the others until all were allocated. This final rule would prevent any one collector 'get[ting] hold of too big a share of any one species, while the other or others fail to notice what is happening. (I have heard of a case)' (*ibid.*, 27). For those who insisted on seeing the nests of all the clutches that they collected, this was tough luck, but private exchanges could take place between the collectors later, to allow for this and other foibles. Congreve's rules, of course, required that collectors were honest enough to reveal all of the clutches that they had found, whereas skulduggery was not unknown. On a trip to Finmark, northern Norway, in 1928, Norman Gilroy reputedly 'concealed some of his better finds from Steward' (Cole and Trobe 2000: 241).

Trespass and transgression

As well as one's collecting companions, other people might be met when out in the field, reflecting its constituting a social as well as physical space (Cloke *et al.* 2004: 4). Nest searches commonly involved encroaching on to other's property, with the possibility of encountering landowners who might not be sympathetic to the presence of an egg-collector. As covered earlier, Hay reported how he : 'Found chaffinch in 5, but met an old man who started talking. As I was in his garden I had to hide the eggs and consequently lost 2!' (8 May 1949) The fact that the owner was talking to him, but that he had to hide the eggs, implies that in this case it was the egg-collecting rather than simply the trespassing to which the owner might have objected.[95] Farmers demanded respect, and Black (1929: 23) recommended giving the farmer 'as little annoyance as possible (and he is easily annoyed)', mainly by keeping out of his sight. Gamekeepers would also jealously guard their territory, but also had unparalleled knowledge of the birds of prey breeding in

[95] This occurred just five years before the 1954 Act that outlawed most egg-collecting, which reflected a wider public shift in attitudes away from egg-collecting.

their patch (and which they would sometimes kill as vermin), information which they might share if cultivated tactfully. To assist with obtaining hawks' eggs, Hay 'made contact with one or two keepers and managed to get a local kestrel in 4 from the "glen water" course'. Certain wealthy collectors went so far as to pay gamekeepers to collect eggs on their behalf, and Arbuthnott recorded eggs '[t]aken by W. Logie gamekeeper' in 1905 at Rousay Orkney. Robertson wrote of being 'informed' by people about bird sightings, including a Mr Taylor reporting unusual arrivals at Balgray. As a regular visitor to these places, Robertson had likely befriended local informants, who would then 'keep an eye out' in his absence.

At boarding school, Hay faced a different figure of authority in the schoolmaster, and needed to become adept in the arts of subterfuge:

> ... found a Pied Wagtail in 6 eggs ... on the school building. I went up & took them. I was caught in the act but "played the innocent" and got away! (with the eggs.) (24 May 1949)

One month later he was bolder still, stealing out of bed at 3 a.m. to obtain the eggs of the great crested grebe nesting at a nearby dam, a prohibited location. In 'Reminiscences of a Bird Lover', Charles Belcher (1939: 31) described being at boarding school at Geelong in Australia in the late-nineteenth century.[96] Many of the boys went out during free time on a Sunday for a full day's nesting, which required being up in the middle of the night. Belcher was assigned one time to wake the others up, and he went in to one of the master's rooms by mistake and 'pulled him out' of bed. Fortunately for the boy, nothing was later said about it.

Conclusion: the importance of fieldwork

Fieldwork occupied a central place in the oological imagination, just as it has for geography (e.g. Powell 2002, 2007b; Richards 2004; Naylor 2010a). Being a competent 'field man' or 'field ornithologist' (and not just a 'cabinet man' buying eggs from dealer or other collectors) was perhaps the highest accolade that could be bestowed on a oologist. Whereas a contrast has often been drawn between the field as a site for gaining experience, and the laboratory as a site for securing knowledge, for example as argued by Cuvier

[96] When nesting was 'the Springtime pre-occupation of four-fifths of the school' (Belcher 1939: 30).

(Outram 1996), for oologists activity in the field was the primary source of both epistemic *and* experiential authority. Field oologists knew exactly where their eggs came from (assuming they were not lost), and were usually also responsible for species identification because this had to be done in the field, unless parent birds were shot and brought back home. The insistence on provenance mattered a great deal to many collectors, and scientifically, the collector was conferred near unimpeachable authority from exploits in the field. Some oologists insisted on taking their own clutches, in which case fieldwork was a prerequisite; for the many others who bought or exchanged clutches, they needed to be happy about the authenticity of eggs, which depended on the credibility of the collector who originally took them in the field.

The experiential authority gained through field collecting was a crucial way of establishing this credibility, earning the respect of peers and building up a collection not just of eggs but of 'war stories' from the field; as Kuklick and Kohler (1996: 13) observe, '[a] central premise of fieldwork is that understanding is founded in personal experience'. Field exploits required having the constitution to spend hours outside and to reach nests in difficult locations, and 'tremendous physical fitness', as ascribed to Walpole-Bond (E.C.L.S. 1958: 29), was therefore a highly prized attribute among field collectors, just as it was for explorers of earlier eras (Withers 2004).With its physical side, fieldwork appears to have satisfied a more primal urge for 'derring-do' and action, traditionally understood as masculine expressions of enthusiasm. Geoghegan (2013: 40) notes how '[e]nthusiasm has long been associated with notions of impassioned mood, intensity of feeling and passionate dedication'. Such sentiment is certainly present in Peter Hay's field-notes, and a little less so in the more matter-of-fact style employed by Arbuthnott and Robertson. In the wider oological literature, attention paid to feats of daring such as climbing, and the evident glee taken in describing the foulest of weather and awful travelling conditions, emphasise the cachet placed on experiencing hardship in the field. Congreve (1953: 6) describes how during a visit to Spitsbergen with Jourdain in 1922, '[w]e agree that no-one in the world, whether sportsman or anyone else, would put up with the discomfort that a birds' nester will put up with for the sake of his specialised science, sport and hobby'. By going out into the field and coming back with a material bounty of eggs and a wealth of experience, oologists proved their mettle. The intertwining of egg-collecting as a reasoned pursuit of scientific knowledge with a more visceral enthusiasm is a theme recurring later in this thesis.

As a last thought on the field notes left by Arbuthnott, Robertson and Hay, it is notable that they reveal little about these collectors' inner lives. The absence is not surprising, given that they are specifically records of field activities and not a journal of their greater experience. A small suspicion arises, however, that for some collectors egg-collecting actually took up, indeed invested and shaped, a large proportion of their emotions and attachments. The sheer amount of time that they spent pursuing it, never mind thinking about and planning these activities, suggest that egg-collecting was one of the most (if not *the* most) important aspects of their lives at the time. Curiously, then, collectors' surviving notes might, after all, be revealing a lot about their authors' inner drives, motivations and even feelings.

Coda: Cross and Trotter eagle-watching

In addition to the egg-collecting diaries and notebooks of Hay, Robertson and Arbuthnott, GM also has a series of notebooks by Captain Donald Cross. Cross has already been encountered in this chapter through his connection with the young enthusiast Hay, but GM also owns Cross's egg collection. The notebooks date from the 1950s and 60s, when Cross ceased egg-collecting and instead began watching the nests of birds of prey in order to protect them from the depredations of egg-collectors and other potential intruders, whose activities had been outlawed by the Protection of Wild Birds Act 1954. Two of the notebooks, written in Cross's tightly formed handwriting, record his searches for observations of raven and other nests from various remote sites in the Southern Uplands of Scotland such as Glenwhergen, the Dalveen Pass and the burns above Sanquhar. These places are still unfrequented by visitors, largely ignored in favour of the Highlands. Cross also recorded notes from watching golden eagles nesting in the Carrick region of Ayrshire, bordering Galloway, and these notes form the basis for the third notebook, written jointly with T.G. Trotter, as described on the first page: [97]

> RECORD OF BEHAVIOUR OF GOLDEN EAGLES DURING INCUBATION PERIOD FROM 5TH APRIL TO 26TH APRIL 1957. (BOTH DATES INCLUSIVE.) AT "THE SLOCK" SOUTH AYRSHIRE. BY FORESTRY GAMEKEEPER. T.G. TROTTER.
>
> _____
>
> TOTAL HOURS PERSONALLY WATCHED.

[97] This area contains the UK's first 'Dark Skies' park, evidence of its continuing remoteness.

359 HRS.

RELIEF HOURS WATCHED BY.
D.G. – D.G. AND. R.F.
72 HRS.

———

Left-hand pages added by Donald Cross.
From personal observations, and notes left by his head forester, Donald Bremner.

An extract from the diary is shown in Figure 4.15. My transcription is as follows, starting with the right-hand page showing Trotter's entries, because they were written first:

Right hand page:

Wednesday April 17th.
Very bad morning, heavy rain + strong gales, which persisted most of the day. Had a visit from D.B. on behalf of D.C. to arrange for Easter, my hours (including travelling time) to be from 05.00 hrs to 14.00 hrs from Friday to Monday (incl).
Very little activity on part of Eagles to-day. Cock bird arrived about 12.50 hrs + circled the site, displaying a good deal, at 12.55 hrs the hen quietly left the nest + flew off in the direction of the Tauchers returning at 11.20 hrs + settled back on her eggs, a period of 25 mins.
An incident occurred this evening at between the hours of 21.00 hrs and 22.00 hrs.
An independent [sic] report has been submitted in writing.

Left hand page:

17/4/57.
D.B. contacts G.T. and arranges to relieve him on Friday 19th to Monday 22nd (Incl.) at 12.00 hrs. till darkness.
D.B. met* both Mr. Chisholm and Peter Graham and had their approval of this plan.
(* on his way home)

11.20 should be 1330?
CHO

This is the suspected "attempt"; and evidence was left in the form of "piece" snappings etc. under the "big rock".
D.C.

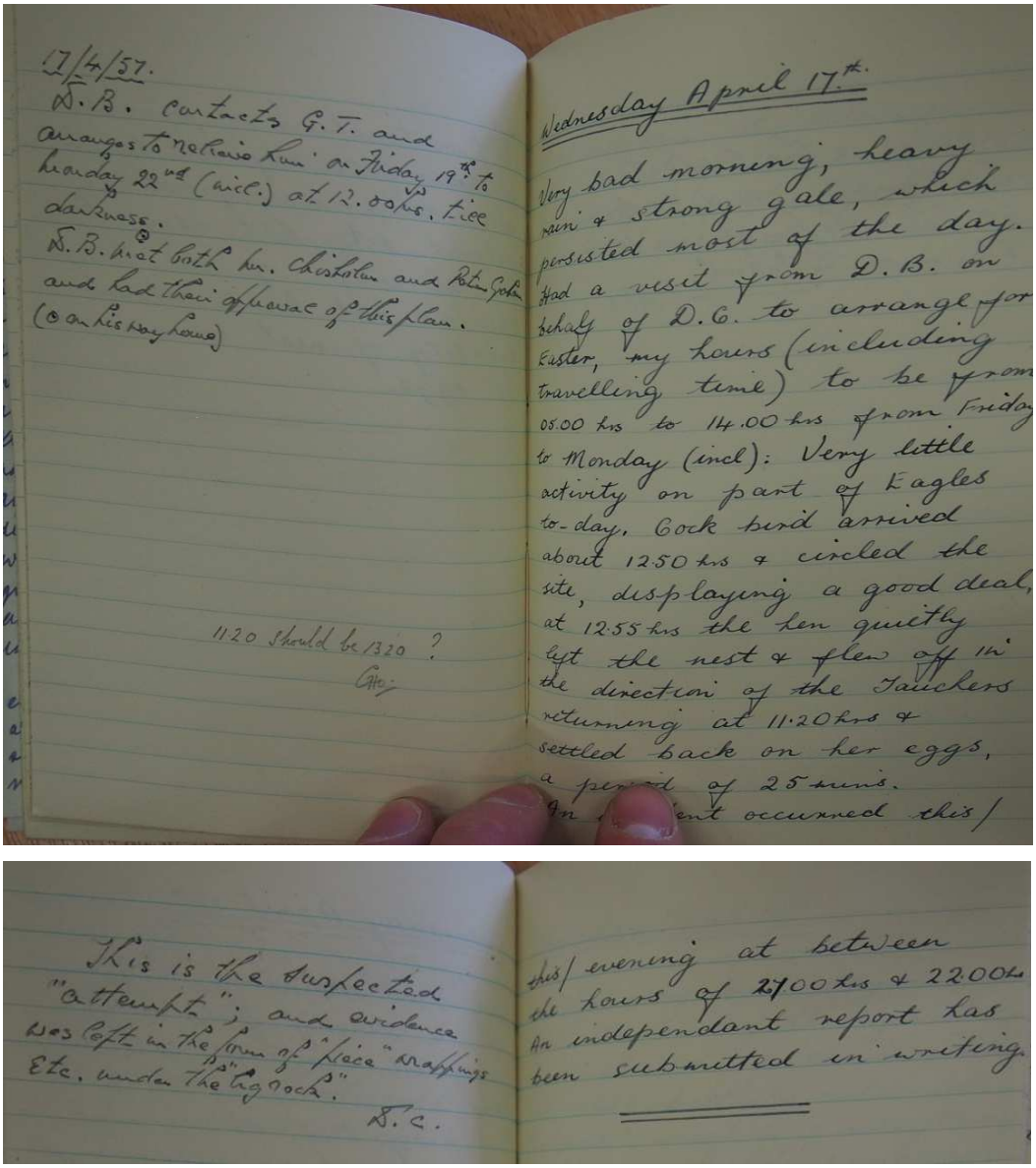


Figure 4.15 Extract from Cross and Trotter Eagle-watching diary, 17 April 1957.
(© CSG CIC Glasgow Museums Collection)

The 'Slock', or Wolf Slock, where the eagles nested, is on the side of Hoodens Hill at the northern end of the Dungeon Hills of Galloway, where, according to a Scottish Mountaineering Club guide to the area (Andrew and Thrippleton 1976; 79), 'walking is rougher than on most Highland hills'. In particular the surrounding valleys, including the course of the Gala Lane ('lane' being the local name for a stream) which Cross and Trotter would have needed to cross to reach the cliff, provide some of the most difficult terrain in the country, where '[i]n many places ... the vegetation grows so thick and high that it is not easy to see where you are placing your feet. It can be exhausting and exasperating negotiating these areas' (*ibid.*: 91).[98] I can personally attest to this claim, having walked

[98] Cross and Trotter may have been able to use forestry roads to get near the tent they used for observing the nest, but they would still have had to approach the nest on foot, which they did fairly often,

over Hoodens Hill and back along the Gala Lane, where the going was so tough that even picking one's way across rough scree and felled forestry seemed preferable. My walk was in a heatwave in July, whereas Cross and Trotter were often out in bitterly cold and wet conditions, although the vegetation may have been less rampant outside summer.[99] Indeed, terrible weather is a common feature of the diary entries, although there were clearer days. As well as 17 April's 'heavy rain + strong wind, which persisted most of the day', there were entries such as: '... [h]eavy sleet showers to add to the already miserable conditions.' (7 April); 'A hell of a day, heavy sleet + snow showers in the morning ...' (12 April); 'A terrible day, very wet with half a gale of wind blowing from the North.' (21 April).

The diaries describe some dramatic events. On 16 April some visitors appeared who claimed to have permission from 'Cmdr. H.O.', leading the eagle-watching operation, but a note on the opposite pages says that '[n]o such permission was given by me. CHO'. The next day, as described in the entry in Figure 4.15, Trotter described how '[a]n incident occurred ... An independent report has been submitted in writing.'[100] On the opposite page Cross wrote: This is the suspected "attempt", and evidence was left in the form of "piece" wrappings etc. under the "big rock".[101] It appears that unwanted visitors had tried to find the nest. There was drama among the birds, too: the records note that after a few weeks, a second female (the 'Other Woman') came on the scene and caught the attention of the cock bird, leaving the nesting female (the 'Old Lady') to look after the eggs.

In the end, the nesting attempt proved unsuccessful, and Cross collected the abandoned eggs (it is not clear if he added them to his collection). There are also notes by Cross about his and others' eagle-watching in subsequent years. A chick was successfully hatched in 1958, and in 1959 one hatched but died soon after. In 1960 a chick died after the parents were probably 'poisoned by the Spalloch herd plastering the ground with Strychnined lambs. Chick must have climbed over edge of nest in despairation [*sic*] or starvation' (23 May 1960). 1961-63 proved happier, with chicks reared, but it appears that later years were less successful, perhaps because there were 'Far too many people out' (15 May 1964). Cross's last notes date from 1967, with conflicting reports as to whether any eggs were laid. Eagles do not nest in the area today.

[99] They were also out at unsociable times of day, such as as Trotter's hours '(including travelling time) ... from 05.00 to 14.00' described on 17 April (Figure 4.16).
[100] GM does not have a copy of this report.
[101] For those readers not versed in Scottish dialect a 'piece' is a sandwich.

The Cross and Trotter notebook provides evidence of joint authorship, and of collaboration between different people in protecting the nests from intruders. In this and other notebooks, Cross emerges as a 'poacher-turned-gamekeeper' figure.[102] It can readily be seen how the skills gained egg-collecting in the field, such as careful observation, knowledge of bird behaviour and nesting sites, patience and tolerance of appalling weather conditions, could be turned to the service of protecting rather than collecting eggs. However, the drawer labelled as 'spares' in the notebook detailing Cross's collection contains one partial and two complete eagle egg(shells) listed as having been taken from 'the other woman' in 1960, along with a few sparrowhawk and crow eggs taken near Cross's home at Otterden, and those of arctic tern from Shetland. Cross may have had permission to take the eagle eggs if they had not hatched successfully, but the others were almost certainly not officially sanctioned. It seems that Cross could still not resist the odd clutch.

Figure 4.16 Hoodens Hill and the Wolf Slock (in shadow at the centre of the photograph) from the north. The Merrick, the highest mountain in the Southern Uplands, is visible at back right. (Photo author's own)

[102] Cole and Trobe (2000: 18) note how the Jim Birkett (see above) also 'embrace[s] protectionism, becoming an active member of the R.S.P.B. with a licence to watch Peregrine Falcon eyries.'

Figure 4.17 The ‘exhausting and exasperating’ terrain around the Gala Lane below the Wolf Slock. (Photo author’s own)

Chapter 5. The Individual Collector and the Collection at Home

Introduction

Having followed the excursions of egg-collectors in the field, the next major space of practice and knowledge to be considered is that of the egg collections built up by individual collectors in their homes. In this chapter I investigate how collectors prepared collected eggs for inclusion in their collections, how they stored them, and the kinds of information they kept. In addition I consider what kind(s) of people egg collectors were, in terms of socioeconomic profile (gender, age, class and profession), what motivated them to collect, and what kind of character traits they possessed. The characteristics associated with an 'ideal' egg collector, or 'true oologist' will be considered, alongside those of real-life collectors. A collector's home, and his collection, were reflections of his personality, motivations and sociological characteristics, and under his individual control to a greater extent than the other spaces of egg-collecting discussed in this thesis, so there is logic to considering the individual collection and collector in the same chapter. [103] Also, the interior physical space of the home found a parallel in the subjective, inner space of the collector's personality and motivations.

When considering the activities and transformations that occur to eggs between the field and the collection, a number of concepts from science studies discussed in chapter 2, particularly those introduced by Latour (1987; 1999), are useful. Whereas 'the field' refers to the myriad sites where collectors visited to take eggs from their original habitats, the place where the collector prepares and inducts his eggs into the collection can usefully be thought of as 'the laboratory'. For most oologists this was not an institutional space inhabited by people in white coats, but instead the collector's home, perhaps even just their kitchen sink and table. In this very minor 'centre of calculation' (Latour 1987), the abundance or confusion of the natural world, represented by eggs recently collected from the field, was converted into the scientific order – or at least some version of homely order – of the collection.

[103] As in the rest of the thesis, the masculine pronoun is used, given that overwhelmingly, egg collectors were male.

This conversion involved a number of different transformations or transitions. Firstly, the full egg needed to be emptied of its contents. The practice of egg-blowing forms a reminder that so-called egg-collectors were really egg*shell*-collectors, for whom the potential life-form inside the shell was a by-product, more an annoyance than anything else. The resulting cleansed eggshells were in a suitable material form for entry into the collection, where they could be compared with other eggs therein, and transported if necessary to show to other collectors.

In addition to the physical emptying out of birds' eggs for entry into a collection, which is a form of physical abstraction, the eggs could also be abstracted further by turning them into data. While physical collections of birds' eggs can be moved around and brought into close proximity and comparison with other specimens, their 'mobility, stability and combinability' (Latour 1987: 225) have limits. For example, they are very fragile and, more fundamentally, as unique physical specimens they can only be in one place at one time. Data about birds' eggs, on the other hand, can be reproduced in all manner of different locations without risk of loss or damage, and combined with data about other eggs. In Latourian language, data about birds' eggs is a form of inscription, the common currency of any scientific discipline. For many collectors, however, their inscriptions would never leave the home except possibly in notebooks taken to the field.

Preparing eggs for the collection

Egg-blowing: introduction

When a collector had obtained a clutch of eggs, he needed to empty the shell of its biological contents. The process of emptying out eggshells was known as 'blowing' the eggs, for reasons which will become clear. Normally eggs would be blown in the comfort of the collector's home (or other available accommodation), but on longer collecting trips it might sometimes be necessary to blow eggs out in 'the field'. Here conditions were less easy to control, and improvisation with materials and a water supply might be necessary (e.g. Watson 2009: 66-67). Competence in the practice of blowing eggs was crucial for the collector who prepared his own specimens rather than obtaining them from other collectors, so it merits detailed attention.

Egg-blowing equipment came in a variety of guises, from primitive home-made tools to kits designed for the purpose by specialist suppliers. Glasgow Museums (GM) has a set of equipment donated by Miss Crowther, including a kit (Figure 5.1) produced by Watkins and Doncaster, suppliers of natural history equipment (to be discussed briefly in Chapter 6).[104] The purposes of these implements will be explained along with each stage of the process of egg-blowing, partially informed by my own experimental efforts to learn the techniques. I was given the opportunity to try my hand at egg-blowing, with some hens' eggs bought at a local supermarket, and some pictures of my attempts are included here. GM also has some instructional manuals (many of which were chiefly concerned with taxidermy) containing sections describing the egg-blowing process, and I will call upon their advice in this discussion.[105]

Figure 5.1 Egg-blowing kit produced by Watkins and Doncaster.
(© CSG CIC Glasgow Museums Collection)

[104] GM also has some more tools donated with the Robertson collection.
[105] Patchett (2010) used some of the same manuals, in seeking to recover past practices of taxidermy.

Drilling a hole

The first stage in egg-blowing is to drill a hole in the egg. From the late nineteenth century onwards, the consensus was that only a single hole in the centre 'of that side with the fewest markings' (Watkins and Doncaster, n.d.) was needed, whereas earlier it was common practice to drill two holes, often at each end. The wisdom then prevailing was that the collector could blow into one hole and the contents would come out of the other, but this was proved unnecessary as one hole could be used for both purposes (see below).[106] Moreover, a hole at each end spoiled the egg for display purposes as the holes could not easily be concealed, leading Christy (1888: 115) to describe it as a 'barbarous practice'. To make the hole, a steel egg-drill (Figure 5.2) with a 'sharp-pointed conical head of rasping surface' (Coues 1890: 76), usually slightly serrated, was preferred, although a needle was sometimes employed to make the initial hole, and occasionally for the entire hole if a drill was not available. Holding the drill perpendicularly to the egg:

> A twirling[107] motion of the instrument gradually enlarges the opening by filing away the shell, and so bores a smooth-edged circular hole. This should be no larger than is required to insert the blow-pipe loosely, with room for the contents to escape around it. (*ibid.*: 77)

Most collectors aimed to keep their blow holes as small as possible[108], with Congreve recommending 1/16 inch diameters for duck eggs (and larger), and narrower holes for smaller eggs (Congreve 1948: 50-51).

Figure 5.2 Egg drills.
(© CSG CIC Glasgow Museums Collection)

[106] Coues (1890: 77-78n) notes that, although using one hole was 'doubtless supposed to be a very modern trick', an M. Danger had described it in 1828. In one of his essays, Charles Waterton (d. 1865) described how he found 'that one hole is sufficient for larger eggs' although he still used two small holes for smaller ones (Moore 1871: 526).
[107] Browne (n.d.: 226) described the same motion as 'twiddling' (Figure 5.3).
[108] An exception was Peter Adolph (1916-94) who, Cole and Trobe (2000: 2) note, disliked small holes. Adolph worked for Watkins and Doncaster before becoming an egg-dealer, and later invented the table football game 'Subbuteo', named after the bird of prey the hobby, whose Latin name is *Falco subbuteo*.

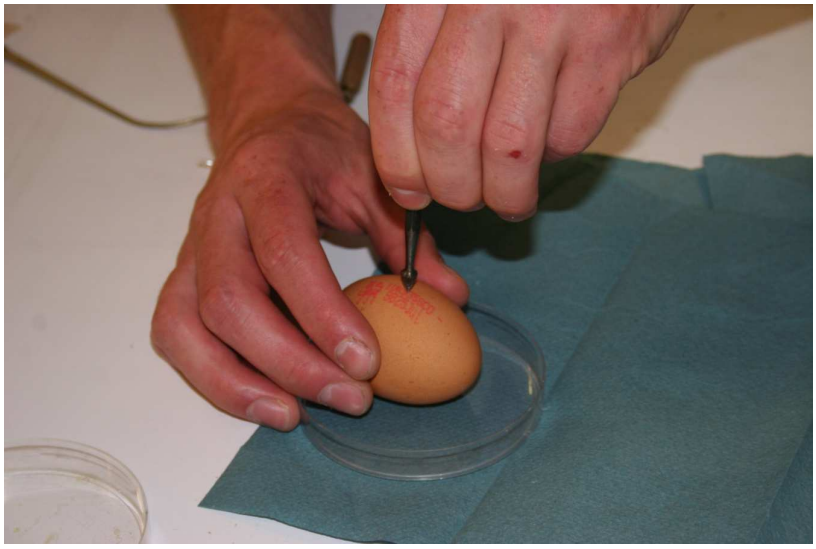


Figure 5.3 'Twiddling' the drill to create a hole.
(© CSG CIC Glasgow Museums Collection)

Figure 5.4 Blow pipe for egg blowing.
(© CSG CIC Glasgow Museums Collection)

Figure 5.5 Blow pipe, probably home-made by melting a piece of glass tubing.
(© CSG CIC Glasgow Museums Collection)

Emptying the egg's contents

Having drilled a hole, the contents of the egg had to be removed. For this, a blowpipe was generally used. Blowpipes came in a variety of lengths and thicknesses, with the brass pipe in Figure 5.4 being a typical example. Alternatively, a home-made version could be fashioned from a glass tube using a gas flame (Christy 1888: 114), which could well have been the origin of one of the pipes in the GM collection (see Figure 5.5). Christy (1888: 116) noted that 'a straw or grass-stalk will make a tolerable substitute', and in this vein Congreve (1967: 52) noted how Jourdain:

> ... had a unique method of egg-blowing. It was by the use of hollow grass stems (outside Arctic regions). These stems were unbendable after one end insertion [*sic*] through very small sized blow-holes, which caused him to hold his eggs above his face in order to keep stems straight. The result was naturally messy...

Using a more orthodox method, the collector should 'direct a strong current of air into the egg, the point of the blowpipe being kept about a quarter on an inch from hole. The ingoing air will force contents out' (Watkins and Doncaster, n.d.). Various authors (e.g. Davis 1907: 149) advised carrying out the process above water, as this would catch the egg contents and also cushion the shell in case of a slip. Coues (1890: 77) admonished not to blow too hard, and Davie (1894: 143) wrote: 'Do not hold it too tightly in your fingers, for, if it breaks, you will learn at once that a thing of beauty is *not always* a joy forever'.
For those who had run out of 'puff', or had little to begin with, alternative options were available.[109] The collector could attach a pipe to a water supply, the pressure of which should help evacuate the egg's contents (e.g. Davie 1894: 144), to a 'blow-ball with an air reservoir' (Wagstaffe and Fidler 1968: 270), or even to 'a powerful rubber bellows made for poker workers' (Workman 1925: 33). Alternatively, a suction pipe could be used to suck rather than blow the contents out, which would drain into an attached bulb, although care was necessary to avoid sucking any of the liquid into one's mouth. Other practical matters were also integral to effective egg-blowing, such as holding the egg effectively, and pointing the hole in such a a way as to aid the contents coming out (as I realised in my own fumbling efforts shown in Figure 5.6).

Figure 5.6 Blowing an egg. I had not yet realised that holding the egg with the hole facing downwards would have helped the contents to escape more easily.
(© CSG CIC Glasgow Museums Collection)

[109] Coues (1890: 77-78) noted that '[b]lowing eggs is a rather fatiguing process; the cheek-muscles soon tire, and the operator becomes "blown" himself before long'.

Fresh eggs (taken when newly laid) were usually much easier to blow than incubated eggs, known as 'hard-sat' (Christy 1888: 116) or 'hard set' (Browne n.d.: 226), in which the contents became increasingly thick, and the shells more brittle, as incubation progressed. Some authors advised removing as much as possible and then filling them with water to macerate the remaining contents, perhaps with some bicarbonate of soda (Coues 1890: 79). In some cases, an embryo would have started to form, which needed to be removed (*ibid.*). This grisly process could be effected by drilling a larger hole than usual through which thin scissors could be inserted to cut up the embryo. The resulting pieces could then be blown out, or extracted using forceps or an 'embryo hook', often simply a piece of stiff wire turned back at one end (Figure 5.7). Embryo hooks provide a visceral reminder that for egg-collectors, the contents of eggs were surplus to requirements, with the once-developing life-form of the chick merely being annoying dead matter to be removed as efficiently as possible.

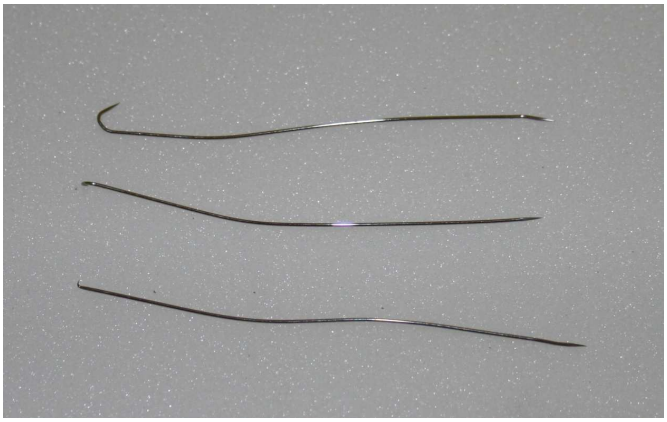


Figure 5.7 Embryo hooks of different sizes.
(© CSG CIC Glasgow Museums Collection)

Once an egg had been emptied of most of its contents, it needed to be washed out with water. Watkins and Doncaster (n.d.) noted how their suction pipe was useful for doing this, but a syringe could be used instead, or the egg could simply be immersed in water and then drained, albeit at the risk of slightly dulling the shell's pattern. Some authors recommended using chemicals to help in cleaning out the egg, such as caustic potash or soda (Congreve 1948: 53-54; Pitman 1956: 193), or 'a solution of six grains of corrosive sublimate to an ounce of rectified spirits of wine' (Browne n.d.: 226). This method was especially useful if the egg had been incubated, when a membrane may have started to develop on the inside of the shell.[110] When the collector was satisfied that the inside of the shell was as clean as

[110] Some eggs may have also required scrubbing on the outside if they were coated in dirt such as faecal matter. While conducting microscopic analysis of the six great auk eggs held by the Natural History Museum, Birkhead (2016) discovered that half of them had had their shells scraped clean.

possible, he could then leave it hole-down to drain on a piece of blotting paper or cloth. Once dry, it was finally ready for addition to the collection.

It should be noted that although simple in principle, egg-blowing was a highly skilled practice, requiring diligence, patience and a steady hand. The shell of a hen's egg is reasonably robust, and large enough to drill a hole without exceptional dexterity, but even then it took me at least an hour to blow just two eggs (one of which is shown in Figure 5.8). Experienced collectors could blow eggs very quickly, including tiny ones such as those of the goldcrest, which are difficult even to hold without breaking, never mind to drill a hole in their side. It is no wonder that egg-blowing was a highly prized skill among collectors.

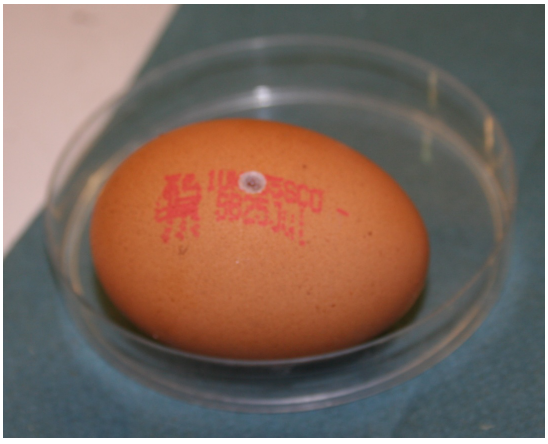


Figure 5.8 The fully blown egg.
(© CSG CIC Glasgow Museums Collection)

Preservation, storage and display

Having blown the eggs, the next task for the collector was to determine how, and where, to store new acquisitions. Dedicated collectors usually preferred to house their eggs in drawers in specially-designed cabinets, which could be made or bought in standard sizes from specialist suppliers, and GM has examples of both types. Cabinets were usually fashioned from wood such as mahogany, oak or 'deal' (pine) (e.g. Hasluck 1914), although steel cabinets were also mooted as a possibility (*OR* 1923a: 36). Using cabinets, eggs could be kept free from light and dust, while at the same time being easily accessible for viewing. Given that eggs come in a variety of sizes, the heights of drawers often varied accordingly, sometimes with a standard differential in size between drawers so that they could be replaced (e.g. one big by two small) at a later date if necessary (Christy 1888: 119). The original collectors' cabinets held by GM typically have the largest drawers and eggs lower

down and the smaller ones at the top, if their size varies at all (Figure 5.9).

Figure 5.9 Cabinet containing most of the Crowther collection. Note the slight increase in drawer size from top to bottom, to accommodate different size eggs as efficiently as possible.
(© CSG CIC Glasgow Museums Collection)

Sub-compartments made of wood or cardboard could be added to each drawer to house individual clutches separately (Figure 5.10), each of which could even be housed in its own 'card-board box with a glass top' (Christy 1888: 119) for ease of being taken out for inspection. Occasionally, though, collectors elected to do without dividers between clutches, as with GM's Crowther collection (Figure 5.11). If data was kept on cards rather than in a notebook, each clutch could be accompanied by its matching data card. Cotton wool was commonly recommended for supporting the eggs upon to prevent them rolling about, but some collectors used other materials. For example, Cross's collection at GM is housed on a bedding of 'wood wool', also known as 'toe' (Figure 5.10). A disadvantage of using these organic materials was that they could fall prey to parasites or mould (see Chapter 7 for further discussion), which could then damage the eggs, a risk which could be reduced by replacing the padding every so often (Wagstaffe and Fidler 1968: 68)[111]. Christy (1888: 119) noted that:

[111] The treatment or prevention of mould was a subject occasionally tackled in *OR*. For example, J.P. Suthard of California (1948: 44-47) noted that 'an aqueous solution of mercuric chloride ... is a certain method for destroying fungi or bacteria', although this risked poisoning the collector (and curing his syphilis).

> The very worst possible ways of displaying eggs are threading them on a string, and gumming them on card. No one having the slightest pretensions towards being a naturalist, will ever adopt either of these methods.

How collection was stored thus had implications for whether or not a collector was considered a serious naturalist or merely a dabbler. These strictures served to inculcate general conventions of display and view-ability, even if an individual's collection was unlikely to be viewed by anyone other than himself. Some collectors did show parts of their collections to other collectors, of course, either by inviting them to their home or by attending meetings with other enthusiasts, as will be discussed in Chapter 6.

Figure 5.10 Drawer from the Cross collection, with each clutch in its own compartment backed with 'wood wool'.
(© CSG CIC Glasgow Museums Collection)

Figure 5.11 Drawer from the Crowther collection. Unusually, there are no dividers between different clutches, arguably adding to its visual appeal.
(© CSG CIC Glasgow Museums Collection)

It is an indication of the popularity of egg-collecting at the time that a *Concise Household Encyclopedia*, not dated but with 1920-30s styling, contained a section on 'Birds' Eggs: A Cabinet for Collectors. How to Make a Set of Airtight Drawers' (Amalgamated Press n.d. 102). The authors note that '[t]he woodworking enthusiast who is also a naturalist will readily adapt this design to other collections, such as Butterflies' (*ibid.*), which may imply that eggs were seen as the 'default' natural history collection of the day. The instructions recommended using solid mahogany with veneered panels, and included a set of detailed diagrams to aid construction.

Cabinets with drawers were not the only way to keep and display eggs. GM has a distinctive display case with a wooden base and back, and a rounded glass front (unfortunately slightly cracked), donated in 2012 by Lorraine Miller (Figure 5.12). Aesthetically this cabinet and its collection may be very pleasing, but it held practical disadvantages for the serious collector: the eggs are not arranged in clutches, there is no room for accompanying data, there is little opportunity to add further eggs, and exposure to light could lead to the egg surfaces fading.

Not all collectors, especially younger ones, could afford to make or buy cabinets, especially if made of mahogany, and some collections were simply housed in boxes found in the home. Such collections are known by museum curators as 'shoebox' collections, as this type of box was typical (Figures 5.13 and 5.14). In a 'shoebox' collection the eggs were usually jumbled up together rather than arranged neatly in clutches, and data accompanying the eggs was less common than for 'cabinet' collections, which limits their value as resources for scientific research. On the other hand, they are still material records of individual's collecting exploits, often visually distinctive.

Figure 5.12 Egg display cabinet with curved glass front.
(© CSG CIC Glasgow Museums Collection)

Figure 5.13 A 'shoebox' collection in its most literal sense. Note the inclusion of a varnished egg, something most serious collectors frowned upon.
(© CSG CIC Glasgow Museums Collection)

Figure 5.14 Another 'shoebox' collection, this one revealing other loyalties of its owner. The football stickers would allow an approximate date for the box (and by inference, the collection) to be estimated.
(© CSG CIC Glasgow Museums Collection)

The written record of GM and published sources provides little evidence of where collectors kept their collections at home. To some extent their setting would depend on the size of the collection, as a shoebox collection could be kept on a shelf almost anywhere or under a bed, whereas a cabinet or set of cabinets required more space. Some collectors, if they had the means, kept a dedicated room for their collections. For example, a photograph in Cole and Trobe (2000) shows 'Charles J. Bellamy's egg room' at his home in Hampshire, with at least five sets of drawers topped by mounted birds.

Data

Though the eggs themselves comprised the focus of the collection, for the serious collector, data about the eggs was another essential ingredient. This data could be stored in a number of ways. Most directly, it could be written directly onto the egg (Figure 5.15). This had the advantage that it could not later be accidentally lost, but it did have limitations; according to Jourdain (1923: 81), it 'hopelessly disfigured' one side of the egg, and for smaller eggs the amount of data that could be scribed on them was limited to a few bare essentials.[112] A more common approach was to keep data cards, each referring to a particular clutch. A 'set mark' was allocated to the clutch, written on the data card and also scribed onto the egg(s) in the collection to which the data referred, thus providing a crucial link between card and eggs (Figure 5.16). Without such a link, they could not be conclusively connected and the data would be next to worthless if the data and eggs were separated. Marking could be done with a pencil or pen, with the latter having the advantage that '[t]he egg is thus indelibly marked, and is authenticated as long as it exists' (Christy 1888: 118); a downside was that pen was more visually obtrusive. An alternative to data cards was to keep data (including set marks) in a notebook or catalogue, but this was potentially less versatile if further clutches were added at a later date, or if the collection was broken up and dispersed to various other collectors (Congreve 1949: 19-20).

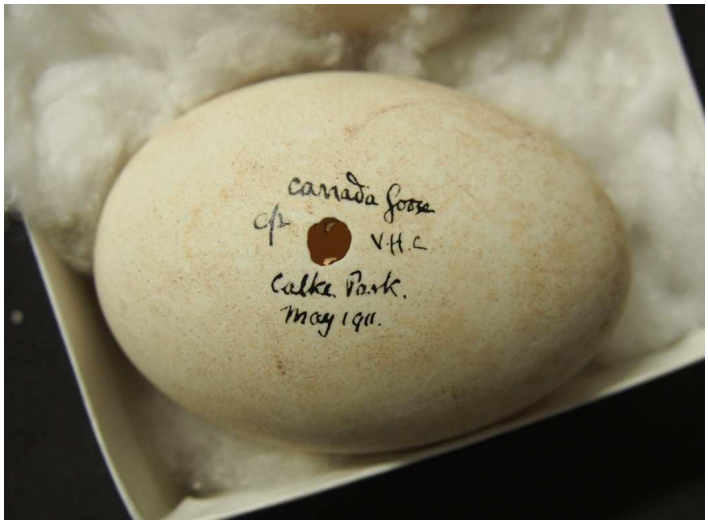


Figure 5.15 Canada goose egg from the Mackenzie collection, with scribed data including species, clutch size, collector ('V.H.C.' Vauncey Harper Crewe, from whose collection Mackenzie bought it), location and date. (© CSG CIC Glasgow Museums Collection)

[112] Jourdain (1923) also argued against writing the species name on the egg when found in the field, in case the attribution was later corrected back at home. This injunction accords with the epistemic superiority afforded by Cuvier to the laboratory over the field (Outram 1996).

Figure 5.16 Great black-backed gull eggs from the Arbuthnott collection, with simple set marks linking back to data in a notebook.
(© CSG CIC Glasgow Museums Collection)

Data cards varied in a number of ways. Acollector could make his own, or alternatively he could purchase standard cards from a specialist manufacturer such as Watkins and Doncaster. Figure 5.17 shows an 'O. E. & M. Standard Data' card produced by Harrison & Sons.[113] 'O. E. & M.' stands for *The Oologists' Exchange & Mart*, a publication in print from 1919-1928, providing a forum for collectors to exchange eggs and information (see Chapter 6). The data cards long outlived their namesake publication.[114]

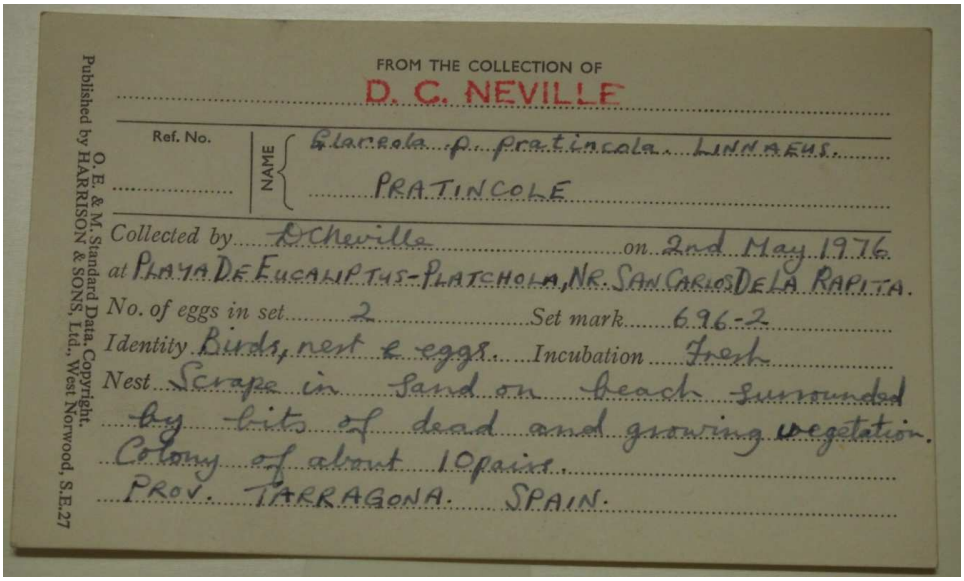


Figure 5.17 Data card from the collection of D.C. Neville, originally printed by Harrison & Sons, Ltd.
(© CSG CIC Glasgow Museums Collection)

[113] See Chapter 6 for further discussion of both Harrison & Sons and Watkins & Doncaster.
[114] The example shown here must have been produced after 1964-65, since Harrison & Sons' address is shown down the left hand side as West Norwood SE27, where they moved from Covent Garden around that time.

The data shown on the card is a typical representation of what collectors saw as important, and – while perhaps a grand attribution for such a humble object – such a card was an 'epistemic space' in the home or 'laboratory' of the collector, a space whose details reflected the collector's preferences and predilections. Firstly, as an overall 'heading' the card states whose collection holds the eggs in question, in this case, one 'D. C. NEVILLE.'.[115] This could be read as a claim of ownership and also of authority: the imprimatur of a highly respected collector implied that the data on the card could be trusted, particularly important if the clutch was then exchanged or sold at a later date. The rest of the card is taken up with the data proper. 'Ref. No.' was not widely used and need not concern us here.[116] In terms of major data fields, first there is the species of bird, usually its English or local name (in this case a pratincole, a type of wader) and its Latin taxonomic description. Next, the card records who actually took the eggs, which was sometimes a different individual from the person's collection in which they ended up, and therefore important information for establishing the provenance of the eggs, especially important if they later changed hand through exchange or sale. The next two items of data record the date when and the location where the eggs were taken. This particular card names the individual beach as well as the nearest village, although the information given was not always so precise. These four items of data provide us with a record of *historical human-animal geography* reduced to its bare essentials: *when* the eggs were taken, *who* took them (which human), *what* species of eggs were taken (which animal), and *where* they were taken from.[117]

The remaining data fields were of varying importance. As discussed above, 'Set mark' was a crucial data item, providing a link between the data card and the eggs that it represented. 'No. eggs in set' indicates how many eggs were in the set, based on the premise that a collector would take a full rather than partial clutch (see Chapter 4 for the rationale behind this action). The next item, 'Identity', was an indication of how the field collector had come to identify correctly the bird species, in this case by recognising 'Birds, nest & eggs'. Seeing the parent bird(s) (or in earlier eras, shooting it and bringing home the specimen for confirmation: see Chapter 4), especially 'flushing' them from the nest, was generally seen as a more reliable indicator than just finding the eggs in a nest, as the latter implied a sort of circular reasoning: if a major point of oology was to find unusual egg specimens ('variety clutches'), then assessing the identity of the eggs merely by inspecting them

[115] The card came to GM in the Liddell collection, which will be discussed in Chapters 7 and 8.
[116] See Congreve (1949: 21) for further discussion.
[117] Christy (1888: 118) notes these as 'the four most essential items' of data.

implicitly assumed that they did not come from an unexpected parent species. As well as sightings of birds providing the basis for identification, their calls nearby were also sometimes given as evidence. Many collectors used the 'Identity' tag differently, however, and, instead of stating *how* they had identified the species, they simply recorded *how sure* they were of their identification, usually writing simply 'sure' or 'certain'. This approach attracted the derision of Congreve (1949: 23), who admonished:

> Do avoid the far too hackneyed "sure." If you are not "sure" you should only very exceptionally collect the eggs. It stands to reason that you are "sure," unless you are one of those too unscientific to care whether the eggs are, for example, those of a Blackcap ... or Garden Warbler.

After 'Identity' on the data card appears 'Incubation', to indicate how fresh (or otherwise) were the eggs. This piece of information had practical consequences for egg-blowing, as discussed above, with fresh eggs being generally easier to blow (and less malodorous) than heavily incubated ones. An experienced collector would often be able to estimate the incubation period merely by seeing and touching the eggs, as their colour would change slightly depending on how long ago they had been laid, and their 'feel' would also alter (furthermore, they would float in water if highly incubated). Novices, on the other hand, would have to wait until they blew the eggs to find out how fresh they were. Finally, there is a large amount of space to record details of the 'Nest'. On the card shown above (Figure 5.17), Neville recorded the nest as: 'Scrape in sand on beach surrounded by bits of dead and growing vegetation. Colony of about 10 pairs.' This is a fairly typical description, giving details of the surroundings and location where the nest was found, and about the construction of the nest, but Neville also notes that the nest was part of a wider colony of the same species.[118] Collectors did vary in the amount and type of information they included under 'Nest', sometimes using it as a space for more general notes. Figure 5.18 shows one of Peter Hay's data cards. The card is simpler than the one discussed above in Figure 5.17, but it contains broadly the same type of information.

The data card (or notebook cataloguing similar information) provided a basis for the scientific aspects of egg-collecting, based on knowledge and analysis of the eggs that were collected, as well as careful observation of behaviour of the parent birds at and around the nest. For scientific purposes, the more complete and accurate was the data, the better, in which respect Congreve (1948) bemoaned the generally lackadaisical attitude of

[118] Some other standard data cards had a separate 'habitat' field where information about the type of surroundings could be noted separately from the geographical location.

contemporary British and Continental collectors compared to their predecessors, and when set against their more meticulous American cousins.[119,120]

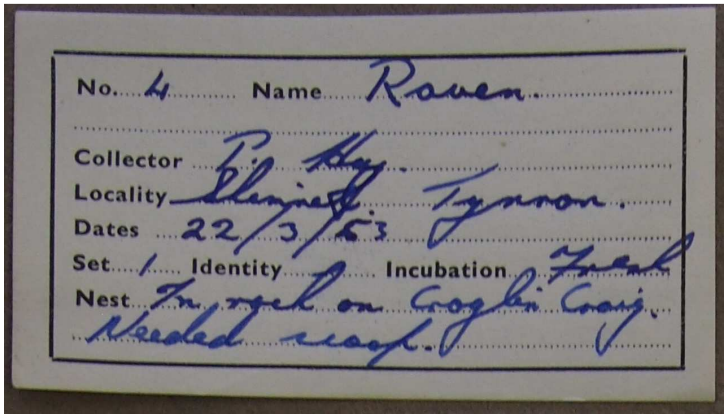


Figure 5.18 Data card from the collection of Peter Hay.
(© CSG CIC Glasgow Museums Collection)

Writing information on the card, and/or on the eggs themselves, was a quite literal form of inscription performed using the instrument of the pencil or pen, transforming birds' eggs into repositories of more-or-less rigorously 'scientific' data. The data detailed in this section mainly concerns what might be termed auxiliary characteristics of eggs, such as species, incubation and circumstances of collection. Most collectors did not keep lists of the physical properties of the eggs as material objects, such as their dimensions, weights and colour, as they did not need such facts, since they had the physical specimens at hand. However, these types of data, truly transformations of eggs into inscriptions, were sometimes provided by oologists in oological publications, as will be seen in Chapter 6.

The geographical and taxonomic range of collections

The collections of different individuals varied in their range of species and geography, factors which were closely linked since some species only bred in particular regions. Limbert (2003: 35) notes that '[t]he two major facets of scientifically-motivated egg-collecting were regarded as comparison between, and variation within, different taxa'.[121] Comparing different taxa usually meant collecting the eggs of different species, obtained

[119] Congreve did not offer an explanation of *why* these differences existed.
[120] Secord (2004) argues that the history of science needs to consider more seriously how science knowledge circulates and is communicated, '[s]o we need accounts of the generic development of the field notebook, the experimental register, the museum catalogue, and other documents of practice' (*ibid*.: 667), a list to which could be added 'the data card'.
[121] 'Taxa' is the plural of 'taxon', a taxonomic category or group.

either directly from the field or via purchase or exchange. As with any form of collecting, narrowing the range provided a focus. With this end ostensibly in mind, collecting at least one clutch of all species breeding in Britain was an obvious, geographically-bounded target. The number of species, a few hundred, was large enough to be challenging, but limited enough numerically and geographically to set as a long-term goal (notwithstanding the difficulty of obtaining clutches that were very rare or only bred in far-flung parts of the British Isles).[122] Some collectors cast their net wider, to include the eggs of all species (including migrants) that were noted to have appeared in Britain, as listed on the 'British List' maintained by the British Ornithologists' Union, but achieving this aim by one's own hands required travel overseas.[123] Collectors with still greater means might extend their collection to other geographical regions, perhaps even the entire Palaearctic (as Congreve (1925) was inspired to do by Jourdain). Others might concentrate on other parts of the world, especially if they were servants of empire stationed in particular areas. To assist collectors, booklets were available with the names of species, which could be cut out and glued into cabinet drawers along with the eggs. Examples in the GM collections include a list of British species by Marsden (1881) and a European list by Dresser (1881), from each of which, bird species names have been cut out to be kept alongside the eggs of that species.[124]

The actual range of collections in terms of species and geography was conditioned by happenstance as much as by design, and depended on where a collector lived and could visit, and whether he was prepared to accept eggs donated, exchanged or sold by others. In the GM collections, some individual collections such as Cross's appear to be entirely self-taken from within Great Britain. The locations mirror his life movements, from Edinburgh, to a spell in the army in southern England, and later life in Ayrshire, with numerous visits to other parts of Scotland and, in particular, Shetland, where he had a second home. Hay's collection was also mostly self-taken, in England and Scotland, with a few Scottish eggs also donated by Cross. The Arbuthnott eggs are mainly from sites near the family home in Yorkshire, plus a few from in and around the English Lake District. As discussed in Chapter 4, a few other clutches were originally taken overseas by Steward from places such as Hungary, Spain and Bosnia, and via the Fortune collection from countries including Finland, Turkey and Iceland. The Mackenzie collection exhibits an even greater

[122] See Lorimer and Lund (2008) for the importance of a target collection being of a challenging, yet achievable, number, in the context of Scottish mountain climbing.
[123] See Chapter 6 for brief further mention of the British Ornithologists' Union.
[124] Dresser was author of a very influential series of works on the birds of Europe (1871-82) and a later work on their eggs (1910).

geographical range, with some clutches self-taken in Burma, where he was in the Imperial Forest Service, and many others purchased from dealers, auctions and other collectors, these eggs originally being taken in all manner of locations ranging from Herfordshire to south Russia, the Persian Gulf and the Bahamas.

As well as differing in geographical range, collections also varied in terms of the types of eggs represented. Some species were more heavily represented than others in collections. One relevant factor was simply availability, with common species being more prevalent than rarer ones in a particular area. Also, some nests were easier to reach than others. In addition to these factors, many collectors had their own tastes, and favourite species which they would collect more heavily than others. J. Lorimer (2007) has written on a number of different aspects of 'nonhuman charisma' in animals. Extending the concept further to eggs, particularly distinctive or beautiful eggs, such as those of the red-backed shrike or guillemot, could be considered charismatic eggs. The eggs of charismatic bird species were also attractive to many collectors, even if the eggs themselves were not particularly distinctive (although many of them were). In this vein, bird of prey eggs were highly prized. The relative inaccessibility of many of these eggs, both in terms of the remote regions where they were often found, and the location of nests on cliff ledges or other difficult sites, also added to their cachet.

The clutches of some species typically exhibited a wide variety of clutch types in terms of colour, size or shape, or the number of eggs in the clutch, and '[i]t was birds like the Common Cuckoo, Tree Pipit and Red-backed Shrike, characterised by markedly protean eggs, which became avidly collected and studied' (Limbert 2003: 37).[125] These 'variety clutches' were particularly attractive to many collectors, readily showing the 'variation within ... different taxa' mentioned by Limbert (*ibid.*: 35). The cuckoo and its parasitic habit of laying an egg in another species' nest (and disguised as that species' type of egg) garnered much attention from oologists. Chance studied the cuckoo in detail (e.g. Chance 1922, 1930) and filmed a female laying her egg in the hosts' nest, dispelling earlier theories that the egg was first laid in the ground and then moved.[126] Sometimes collectors would track the same cuckoo hen laying its eggs in a number of nests of the same species of foster bird, with E.T. Lees and his father collecting '18 eggs of the same Cuckoo

[125] As will be discussed more fully in Chapter 6, in the early twentieth century the thirst of some collectors for variety clutches provided a focus for some critics of egg-collecting.
[126] The film was released as *The Cuckoo's Secret* along with his 1922 book of the same name.

parasitizing Reed Warbler' in one season (Cole & Trobe 2000: 139).[127] Lees was 'climbing-boy' for Chance (*ibid.*) and also helped filmmaker Ludwig Koch make sound recordings of the female cuckoo for the BBC in 1947 (*ibid.*: 140).[128]

Clutches, or individual eggs in a clutch, which differed from the usual type expected for a given species, were also attractive to collectors. Erythristic eggs, usually of the raven or other corvids, were particularly prized. These eggs were found very rarely, with a higher than usual relative content of red pigmentation giving them a pinkish hue. Cyanic eggs, with a dominant blue colour, were also occasionally found. Steward, Arbuthnott's occasional companion, collected erythristic raven eggs in the Lake District, and another noted collector of erythristic raven eggs was Jim Birkett, a quarryman who lived in the Lake District. It is notable that both Steward (as noted in Chapter 4) and Birkett were competent climbers, as raven nests were often located high on cliffs; indeed, Birkett was one of the foremost rock climbers of his day. [129] Some collectors had more idiosyncratic predilections; for example, Charles Horsbrugh specialised in '"runt" or "pigmy" [sic] eggs' (Cole & Trobe 2000: 121) that were much smaller than the others in the same clutch, and Henry Munt 'collected only white or unpatterned eggs' (Walters 2005: 13).

The wide variety of patterning exhibited by guillemot eggs was attractive to many collectors (as discussed in Chapter 4 *apropos* the 'climmers'). As such they are well represented in the GM collections, notably a batch collected by Lewis R.W. Loyd on a few dates in 1922 and 1923 (Figure 5.19). Perhaps the most charismatic eggs of all, and almost certainly the most expensive, however, are those of another auk species, the great auk. The species became extinct in the mid-nineteenth century, and there are only around 70 known eggs in existence. These eggs are considered significant enough to be the subject of catalogues listing the lineage of their ownership (e.g. Tomkinson & Tomkinson 1966), and sales of specific great auk eggs at auction were mentioned in *OR* (e.g. 'A Correspondent' 1926; *OR* 1946b).

[127] A cuckoo lays its egg in the nest of a bird of another species which already contains a clutch of eggs, and the host or foster bird often then unwittingly incubates the cuckoo egg. The 'evolutionary arms race' between cuckoo and target host species is a central theme of Davies (2015).
[128] Geographers including Matless (2000) and H. Lorimer (2007) have discussed Koch's recordings of bird song, which were released as gramophone records along with text by the ornithologist E.M. Nicholson, who will reappear in Chapter 6. For further discussion of 'sonic geographies', see Gallagher and Prior (2014).
[129] See Cole & Trobe (2000).

Figure 5.19 Two guillemot eggs, along with their data cards, taken by Loyd on 19 June 1922, from Lundy in the Bristol Channel. Note the difference in markings, from calligraphic 'scribbles' to sporadic blotches. (© CSG CIC Glasgow Museums Collection)

More than any other egg, those of the great auk have built up a mythology around them, and their high cost has meant that they have passed through the collections of some notable, sometimes idiosyncratic, collectors. At one point a record thirteen were owned by Vivian Hewitt, a reclusive millionaire who lived amid a huge and chaotic egg collection on Anglesey (Cole and Trobe 2000; Birkhead 2016). He bought the eggs from other collections including those of Jourdain, Lupton and Herbert Massey.[130] After Hewitt's death some were sold to John du Pont, heir to the Du Pont fortune and founder of the Delaware Museum of Natural History.[131] A number of eggs were held until recently in a private collection in Scotland, but are rumoured to have found their way to a Middle Eastern country. GM does not have any original great auk eggs, but such is their cachet that replicas of specific eggs have been produced, of which GM has a few (Figure 5.20).[132]

[130] Herbert Massey (1852-1939) was a Manchester textile trader who built up, mostly through purchase, 'one of the finest private collections of birds' eggs ever to be formed in Britain' (Cole and Trobe 2000: 168). See Birkhead (2016) for discussion of Lupton and Hewitt.
[131] Birkhead (2016). Du Pont was convicted in 1997 of the murder of Dave Schultz, an Olympic wrestler living on his estate, and died in prison in 2010 (Goddard 2010). The events leading up to the murder were dramatised in the 2014 film *Foxcatcher*.
[132] The Natural History Museum has six genuine specimens, some of which I have been shown (as mentioned in Chapter 3), but such is the level of security around the eggs that their location in the stores was kept secret.

EGG No. 22 (Pl. 22)

Grieve's No. 61; Parkin's No. XXI

LOCATION. Private collection of Major Sir John Stirling, K.T., of Fairburn, Ross-shire, Scotland.

HISTORY. First recorded as one of two specimens (*see* No. 23) in the possession of Fairmaire, a dealer in zoological specimens in Paris. It was bought by Rowland Ward the London dealer who sold it to Robert Champley of Scarborough for £25 in 1864. Following Champley's death in 1895 it was put up for sale at Stevens' Rooms on 17th April 1902 and bought by William Stirling of Fairburn for £252. It then passed to his son, Sir John Stirling.

Figure 5.20 Replica great auk egg along with accompanying information. The sum of £252 paid for the original egg in 1902 would be worth around £27,600 in today's prices. Grieve's and Parkin's were two lists made of the extant great auk eggs (Jourdain 1935).
(© CSG CIC Glasgow Museums Collection)

The collector: sociological characteristics

Until now in this chapter, attention has fallen on the egg *collection*, rather than considering the egg *collector* as an individual, in whose home a collection would almost certainly reside. Now the focus will turn to consider what type of people egg collectors were, and what may have motivated them to collect. Firstly, there is the matter of from what groups in society they were drawn, in terms of gender, age class and profession. The main problem in trying to recover this information is that the activities of some types of collectors (e.g. male, high social class, adult) are more likely to have survived, and been recorded in the first place, than those of others. While noting this as an issue, the written

record does provide convincing evidence as to some of the demographic and social characteristics of many egg collectors. The most striking of these is the gender imbalance, which will be discussed first.

Gender

The written record is weighted very heavily towards men rather than women. For example, all of the two hundred or so profiles in the Cole and Trobe books of profiles (2000, 2011) are of men. In nearly fifty years of publication, *OR* contained just one article written (and declared as such) by a woman, Janet Kear's 'A brief review of factors influencing egg-size in a single species' (1965).[133] In *Bird Land*, Frank Whatmough's wife wrote accounts of their visits to Shetland under the pseudonym 'O.C.E.' (e.g. 1949-50: 158-60), but there were few, if any, other female contributors. [134] Delving further, however, reveals that at least a few more women and girls were involved in egg-collecting, including in relation to some of the collections held at GM. Much of the Hensol collection was collected by Helen McDonall in the 1880s to the 1900s, many self-taken around her home at Port Logan near Stranraer, with others purchased. As noted in the last chapter, Robert Arbuthnott's notebook records a companion called Daisy joining him on various occasions, and John Arbuthnott wrote that his sister Jean was present at the taking of two sand martin sets. Whether these two girls or women took an active interest in collecting the eggs is unrecorded.

A closer reading of published sources also reveals female contributions to oology. In profiles of male collectors, Cole and Trobe (2000) discuss the activities of some of their wives, occasionally too their daughters, with their activities ranging from patient and sometimes long-suffering support to more active collecting roles (Figure 5.21). An example of the latter was Steward's wife Edith, who 'could boast that she had taken the eggs of the Golden Eagle herself, when Edward lowered her to an eyrie in Glen Feshie, to take a fine c/2' (*ibid.*: 240). Clarissa Taylor accompanied her husband Cecil on collecting trips with a caravan to Scotland and Europe over the course of 34 years (*ibid.*: 254), and Kenneth Pickford's unnamed wife must have shown forbearance on a trip to Scotland

[133] Kear (1933-2004) held a number of senior positions at the Wildlife and Wetlands Trust, and was also the first female president of the British Ornithologists' Union (Unwin 2004). The occasional use of pseudonyms in *OR* could conceivably disguise a few more female contributors,.

[134] Mr Whatmough wrote often for *BL* as 'Peregrine', and their connection in Shetland, Johnnie Harrison, as 'Bonxie' (who also wrote a series on 'Birds of South Georgia' in the magazine). Information taken from Cole and Trobe (2000: 276). Mrs Whatmough's first name is not recorded.

which was:

> … subjected to heavy, continuous rain. Ken returned home with a series of Pied Wagtail which he had obtained by watching the birds back to their nests with obsessional imperturbability from the hotel grounds in Pitlochry. (*ibid.*: 204)

Even simply by performing activities such as cooking and cleaning on collecting trips, women contributed to their success, reflecting Hayden Lorimer and Spedding's (2005: 29) observation that domestic roles tended to be continued out in the field. Women often played a crucial role in the success of nesting expeditions, but one often left unrecorded and unsung.

Figure has been removed due to Copyright restrictions.

Figure 5.21 'Percy Bunyard with his daughter Edna at Croydon, *circa* 1920. Edna Bunyard merits recognition in her own right by virtue of her illustration of oological specimens ...' (Cole and Trobe 2011: 160; picture on same page).

Age

Egg-collecting was a pastime carried out by both children and adults. GM has a wide variety of collectors' ages represented, as found in the notebooks and diaries accompanying the egg collections. Hay recorded that he 'started collecting eggs at the age of twelve', but he became more systematic, collecting in clutches, three years later in 1948. The age of the Robertson diary author is not recorded, but the sheer frequency of the

entries suggests that he was either not yet subject to the time constraints of adult employment (or, less likely given the usually short range of his collecting activities, that he had a private income). Robert Arbuthnott was an adult collector, but some of his children also went collecting (as discussed in Chapter 4), and some of their eggs also survive in the museum collections. More generally, however, we might expect fewer childhood collections to have survived than adult 'scientific' collections, as the former were less likely to have been kept in purpose-built containers, and may have been thrown out when young collectors reached adulthood and typically left the family home.

Cross (b.1900) provides an example of a collector active for almost his entire life. The earliest clutches are two of house sparrow eggs taken around 1912 'from window boxes, 13 Moray Place, Edinburgh', the home of his maternal grandparents. GM retains eggs he collected in every decade until 1952, along with a few taken between 1959 and 1963 (as described at the end of Chapter 4).[135] 1952 was also the year that Hay records visiting Shetland with Cross. [136] Other collectors also started in childhood. In Chapter 4, Belcher's boarding school expeditions were noted, and Cole and Trobe (2000: 55) record that 'Congreve showed an inclination towards natural history at an early age, and he had already formed something more than the usual schoolboy's collection by the time he entered Woolwich' (Royal Military Academy, aged 17). Childhood collectors sometimes grew out of the hobby when they entered adulthood, especially in later eras when egg-collecting was more generally discouraged, but their early experiences often inculcated a lifelong devotion to watching wildlife.[137]

Class and profession

In an analysis of the professions recorded in Cole and Trobe's two sets of egg collectors' profiles (2000, 2011), Shrubb (2013: 191) notes that '73% of those for whom their profession or job was recorded were professionals – doctors, solicitors, businessmen, serving officers in the armed forces and so forth, together with those of independent means and a handful of the clergy'. The prevalence of these types of people may reflect Shrubb's conjecture that 'such professions probably provided the time for the extensive pursuit of collecting activities' (*ibid.*). Another type of collector worked on country estates, which enabled them to spend a lot of time among birds and to become experts in the bird life of

[135]The Manx shearwater's Latin name, misleadingly for the uninitiated, is *Puffinus puffinus*.
[136] Chapter 4 records how Cross later give up egg-collecting and became a nest watcher.
[137] Examples include Adam Watson (2011) and Bill Oddie (Moss 2004).

their local area. For example, C.J. Baker worked for the National Trust at Leigh Woods near Bristol and became an expert in the hawfinch. Les Flack worked as 'general factotum for the Lakenheath community' (Cole & Trobe 2000: 76) in Suffolk, and was visited by many other collectors who relied on him to locate nests in the area.

Some of the major GM collectors were of a particularly privileged social class. Hugh Corsar Arbuthnott was a descendant of John, 8th Viscount of Arbuthnott. He graduated with a Doctor of Medicine and was registered as a Civil Engineer, and he died in 1915 with an estate worth just under £48,000, equivalent to nearly £5m in today's prices. Donald Cross's father owned Alexander Cross & Sons, one of the largest chemical manure manufacturers in Scotland, and his maternal grandfather was Sir Joseph Noel Paton, a successful artist who had turned down an offer to join the Pre-Raphaelite Brotherhood. Cross attended Loretto School in Musselburgh near Edinburgh, Scotland's oldest boarding school, and later trained as an Army Officer at Sandhurst. [138] On leaving the army he became a farmer and was appointed as Deputy Lieutenant for the County of Ayr in 1955. Hay also attended boarding school (in Uppingham, Leicestershire), suggesting that his family was wealthier than average.[139]

In considering collectors' socioeconomic profiles, there may be an element of selection bias at play in the survival of collections at GM and elsewhere. The collections of wealthier collectors are often more likely to have survived than those from other backgrounds, especially if they were housed in cabinets which lent an air of value unavailable to collections kept in more *ad hoc* containers (although the GM collections contain proof that at least some shoebox collections have survived). It is also important to remember that Cole and Trobe's books mainly record those collectors most active in the social world of egg-collecting such as societies and publications (which I will discuss in Chapter 6). Hence, it might be expected that this sample would be more heavily weighted towards aristocrats and wealthy professionals than the rank-and-file collector, who may have been more likely to hail from a lower social class.

[138] Wallace (2004: 86), a later *alumnus* of Loretto, describes it as 'a rather homely, rugger-lunatic institution … [which] reared a small but urgently precocious brood of teenage birdwatchers in the 1940s and 1950s'.
[139] The biographical information on Arbuthnott and Cross is in the GM archive and was carried out by Richard and Alison Sutcliffe (see Chapter 3).

Hobbyists, amateurs and professionals

Missing from the discussion above of the professions of egg collectors is that of the professional egg-collector, the reason being that very few such individuals existed (except dealers, discussed briefly in Chapter 6). Horsbrugh went on official collecting expeditions for museum and zoos including the South Kensington Museum precursor to the Natural History Museum, and although the main purpose was to collect animals, he also collected some eggs along the way, including a clutch of eggs from a newly discovered quail species found in New Guinea, *Turnix horsbrughi* (Cole and Trobe 2000: 120). The vast majority of other collectors, however, did not make a living from collecting; indeed, oology was an almost entirely 'hobbyist' pursuit, without a system divided into an elite of expert professionals and a much larger group of less committed amateurs. The sociologist Stebbins (1992) identifies four categories of hobbyist, of which egg collectors fit most obviously into 'collector' and field collectors possibly also into 'activity participant' (denoting physical activity).[140] Another term coined by Stebbins (*ibid.*: 3) is also apt:

> … serious leisure can be defined as the systematic pursuit of an amateur, hobbyist, or volunteer activity that is sufficiently substantial and interesting for the participant to find a career there in the acquisition and expression of its special skills and knowledge.

This definition fits neatly with the activities practiced by serious oologists, in contrast with the thousands of superficial 'dabblers' (*ibid.*: 10), who collected eggs unsystematically for amusement or diversion.

Stebbins (*ibid.*: 6) identifies 'six qualities that, taken together, distinguish it [serious leisure] from casual leisure. One such quality is the occasional need to *persevere*' despite moments when the activity is difficult or even momentarily frightening. Field collectors in particular encountered many such incidents, for example when dangling down cliffs or enduring appalling weather. Stebbins also notes a second quality of serious leisure as the:

> … tendency for amateurs, hobbyists, and volunteers to have *careers* in their endeavours ... enduring pursuits with their own background contingencies, histories of turning points and stages of achievement or involvement' (*ibid.*).

Cross provides an example of an egg-collecting career enduring over at least four decades, and many others were described in the wider oological literature such as Cole and Trobe

[140] Stebbins' other two categories of hobbyists are 'makers and tinkerers' and the 'folk artist'.

(2000). A third quality of serious leisure identified by Stebbins is 'significant personal *effort* based on specially acquired *knowledge*, *training*, or *skill*' (*ibid.*), and this chapter has discussed how egg collectors strived to acquire skills such as egg-blowing, and knowledge of different bird species. Through tending to their collections and especially through their field activities, they enjoyed some of the 'eight *durable benefits*' (*ibid.*: 7) identified by Stebbins to comprise the fourth quality of serious leisure, such as 'feelings of accomplishment' and 'lasting physical products of the activity', as well as enhancements of their sense of self. Stebbins also identifies a tendency of serious leisure participants 'to *identify* strongly with their chosen pursuits' (*ibid.*), which many collectors did, informally or by connecting to the formal social structures of oology discussed in Chapter 6, such as joining the British Oological Association or subscribing to *OR*. These types of groups also helped to foster a 'unique ethos' of oology, the final quality that Stebbins ascribes to forms of serious leisure.

The collector: motivations

Overview of motivations

A perennial question directed at collectors is 'what motivates the impulse to collect?' In Chapter 2 some possible motivations were considered from a number of disciplinary perspectives, including psychology, anthropology and sociology. Some egg-collectors attempted their own diagnoses, notably Michael Prynne, whose curious contribution to oological history is discussed in Text Box 5.1. Prynne (1963: 29) identified, 'generally speaking, five reasons for collecting eggs', and they provide a useful basis for our discussion, although I will tackle them in a different order and will sometimes differ from Prynne in my interpretation of these categories:

(1) Financial gain
(2) C*ollectomania*
(3) Sport
(4) Aesthetic enjoyment
(5) Scientific advancement.
(*ibid.*)

In terms of finding out what actually motivated egg collectors, there are practical constraints to answering this question directly. Firstly, there are very few collectors still

alive or active to ask directly, and, given the illegality of the practice, even fewer who would be happy to answer. Secondly, in the written record, it is a question that collectors have rarely broached directly in terms of their *own* motivations, and, even if they had, another difficulty arises. Perhaps more than any other question pertaining to collecting, numerous different motives may be operating at the same time, possibly at different levels of intentionality or consciousness. For example, the Editor of *OR* reported on a paper by Tracy Storer published in *The Auk* (the journal of the American Ornithologists' Union) in which:

> He first defines the three incentives to egg-collecting :-
>
> 1. Mere exercise of the acquisitive instinct.
> 2. A desire for outdoor pleasure.
> 3. A sincere interest in increasing the bounds of knowledge relating to birds' eggs.
>
> He found these three motives *inextricably mixed* in the minds of most collectors and asserts that very few are impelled by the third incentive. (*OR* 1930: 65, italics added)

Note that these incentives correspond broadly in Prynne's list to *collectomania*, sport and scientific advancement respectively. Another, less intractable but still interesting question around motivations concerns what were considered to be acceptable or unacceptable motives for egg-collecting. Often discussions implicitly or explicitly asserted the superior ethical validity of some motivations over others, a crucial consideration in the wider landscape of this thesis, given the central theme of ethical difficulty.

Motivations: scientific advancement and knowledge

Scientific advancement was often stated as the most acceptable reason or motivation for egg-collecting by its proponents, with a by-product of building up a systematic collection of eggs, having representative examples for each species and perhaps also showing notable variations within each species.[141] For example, Francis Jourdain (1931: 5), touching on aesthetic enjoyment, sport and scientific knowledge on Prynne's list, stated:

> Among egg collectors there are cases in which the aesthetic side is the main attraction; to others the sport, in which his brain is pitted against the bird. Of all field sports there is not one in which the odds are fairer to the quarry ... To the true oologist the discovery of a new fact in ornithology, previously unknown eggs,

[141] See Chapter 2 for a discussion of some contrasts between systematic, fetishistic and souvenir collecting.

> locality, or type, or some detail in the breeding habits, these are the real inducements which induce man to sacrifice time, money and energy on a quest, in which new vistas are always being opened up before the worker.

Text Box 5.1 Michael Prynne and *Egg-Shells*.

Egg-Shells by Lieutenant Colonel Michael Prynne is a curiosity even in the curious world of oological literature. It was published in 1963, well after field egg-collecting had largely been made illegal by the 1954 Protection of Wild Birds Act, and as such was something of an anachronism. Prynne was highly skilled at restoring damaged eggshells, and recounts his appearance on the television programme *What's My Line?*, in which a member of the public with an unusual occupation or hobby would mime out a characteristic activity in front of a panel of celebrities, who then had a limited opportunity to ask questions to help them guess what the contestant did. Prynne beat the panel, but they 'nevertheless ... all appeared to enjoy themselves, possibly at my expense or that of Frinton-on-Sea whence I had come' (Prynne 1963: 25).

After a discussion of arguments for and against collecting, the legal situation and various aspects of egg biology, Prynne devoted a large section to practical advice about 'the repair and care of birds' eggs'. Next he went on to discuss the threats that domestic cats and habitat loss both posed to bird populations, before the book took a more disturbing turn. In a discussion of 'The final problem', Prynne turned his attention to human overpopulation. His suggested solution was chilling, resurrecting eugenicist views that had mostly died (at least in print) after the Second World War. Using highly dubious logic, Prynne argued:

> If it is not cruel to take the unincubated eggs from birds, it is not really cruel to deny human beings their ability to reproduce, other than to an organised and limited extent. (*Ibid.*: 275-6)

To this end Prynne recommended that sterilisation 'could and should made the prime punishment for all anti-social behaviour', and also 'carried out in infancy, where the parents were considered sub-standard' (*ibid.*: 276). These odious suggestions did not appear to perturb the book's reviewer in *OR*, Clive Simson, who noted that:

> More birds, less human beings would appear to be the theme. This may be attractive on the face of it, but the novel suggestion for bringing it about are [*sic*] unlikely to meet with general approval. (E.C.L.S. 1963: 65)

It is notable that Jourdain invoked the figure of the 'true oologist' motivated by a thirst for scientific knowledge, and by implication contrasted that ideal with the 'mere' egg-collector

impelled by more selfish or frivolous urges.[142] Stuart Baker (1925: 84-85) used the same trope, noting that:[143]

> One of our best ornithologists once said that for every true oologist there were at least one hundred egg-collectors in Great Britain. ... If a man or boy intends to collect eggs it is, in the first place, absolutely essential that he should have some definite purpose in view. ... Primarily, we may take it that he is collecting with a view to obtaining knowledge.

The scientific credentials of oology as a collective enterprise will be discussed in more detail in Chapter 6.I It is not evident from the archival record that a desire to extend the boundaries of scientific knowledge motivated collectors such as Hay, Cross and Arbuthnott, although they did all keep at least quasi-scientific records in the form of data catalogues or cards. Whether or not scientific knowledge really was a driving motivation for most collectors, they did often end up, unsurprisingly, knowing a lot about eggs and, in the case of field collectors, also the behaviour of birds at and around the nest. This knowledge may not have been extending the corpus of oological knowledge as a whole, but for the individual collector there was satisfaction from learning things that they did not know before. I noted in Chapter 4 how Robertson could recognise at least forty species in a single day, knowledge which must have taken years of observation and research to accumulate. In this vein Shepard (1996: 43, 55), who collected eggs in the USA as a youth, claims that all collecting 'at heart ... is an exercise in nomenclature', and '[t]he bird-watchers or fern collectors or gem hounds rampage mildly in the sweet bliss of infinite typology'. As discussed in Chapter 2, whereas Shepard views this type of connection with the natural world in a positive light, Fowles (1984: 83) disagrees, arguing that [i]t turns nature ... into the mirror in which you flaunt your skill at naming'.

Motivations: sporting pleasure and the thrill of the chase

Oologists were also moved by more visceral motivations for collecting than a desire to

[142] The mythical figure of the 'true oologist' brings to mind the philosophical fallacy of the 'No-true-Scotsman' move, a term coined by Flew (1975: 47) to describe an *ad hoc* attempt to rescue an incorrect assertion. Flew invites us to:

> Imagine some Scottish chauvinist settled down one Sunday morning with his customary copy of *The News of the World*. He reads the story under the headline, 'Sidcup Sex Maniac Strikes Again'. Our reader is, as he confidently expected, agreeably shocked: 'No Scot would do such a thing!' Yet the very next Sunday he finds in that same favourite source a report of the even more scandalous on-goings of Mr Angus MacSporran of Aberdeen. This clearly constitutes a counter example, which definitively falsifies the universal proposition originally put forward. ... [The newspaper reader should now therefore withdraw his earlier claim, but instead he now declares:] 'No true Scotsman would do such a thing!'

[143] See Appendix 2 for brief biographical notes on Stuart Baker.

contribute to scientific knowledge of birds' eggs and breeding behaviour. For example, Congreve declared that 'I think there's no sport like it, and I have done most things in the way of sport. ...The actual study of eggs gives me no particular *thrill*, but to find the nest of a species new to me, and to collect the eggs as a trophy, *does*' (September 1925: 63-64). This lure of egg-collecting had a variety of components that can also be discerned in the writing of other collectors. Firstly, there was the sporting aspect of collecting in the field, a motivation which generally met with approval when being discussed among egg-collectors. In Chapter 4 I considered the moral value attached to being out in the field, and need not revisit that ground. However, it is worth adding here that some collectors positioned oology among field sports such as hunting, shooting and fishing, perhaps in line with Allen's observation (1994: 171) that '[o]rnithology, uniquely among the major branches of the subject [natural history], had long been accepted as an extension of field sports, which enabled it to partake of their atmosphere and high social standing'.

Hale wrote of the satisfactions of field collecting:

> … what appeals to me is that egg collecting is one of the finest field sports I know and I have tried most things, because the collecting of eggs by oneself requires more brains than any other sport, and also one has to be absolutely physically fit. In my youth this was the order of sport with me: egg collecting, shooting, fishing and butterfly collecting ... Sir, for sport, give me egg collecting. (quoted in Cole and Trobe 2000: 107)

As well as the simple pleasures of being active outdoors (sometime more enjoyable in hindsight if conditions were difficult), field collecting also gave collectors the thrill of the chase. In this vein, Nethersole-Thompson claimed that 'to study breeding birds one has to have a predatory hunger for the nest' (Cole and Trobe 2010: xii).[144]

Another of the attractions of collecting eggs was that they served as physical reminders of enjoyable days spent out in the field, vividly evoking memories. Prynne (1963: 32) noted this 'nostalgic appeal', and recounted spotting some kestrel eggs in a disused quarry near his school, 'borrowing' a spoon from the school dining-hall, and using it to scoop up the eggs from their otherwise out-of-reach ledge:

> [T]he success, the exhilaration and the excitement completely overshadowed my discomfort and exhaustion. It even enabled me to endure with a happy heart the whacking ... which I received when, very stupidly, I got caught returning the spoon.

[144] See Appendix 2 for brief biographical notes on Nethersole-Thompson..

> ... It was looking at that egg fairly recently, with its neat pin-hole at each end, which brought back to me all the events of that day as clearly as though it had happened but yesterday; even to singing in the College Choir that evening ... '*As pants the hart for the cooling stream*'. I do not know why I should remember that, or what the connection, unless it was the idea of cooling my behind, the heat from which radiated through my purple cassock.
>
> These are just childish memories, but they serve to confirm the indelible nostalgic response which can be thus evoked. (Prynne 1963: 37)

Collecting in the field thus provided both immediate and delayed gratification. Through their ability to act as repositories for memories of days collecting, eggs provided intangible benefits as well enjoyment in their physical presence.

More widely, the sporting aspect of egg-collecting could be characterised as part of a wider enjoyment in the *process* of collecting. Although this process often took place in the field, 'cabinet men' could also enjoy their own thrill of the chase, this time in the auction house or by other avenues of sale and exchange. Their collections could also act as repositories of memory, this time evoking memories of satisfying acquisitions from other collectors, rather than from the field; meticulously kept records of purchases may have helped to preserve these memories, In the GM archive, an example is provided by Mackenzie's notebooks, in which he recorded when and where he had purchased clutches, and pasted in any further information accompanying the eggs, which occasionally included data cards of collectors who had owned the eggs previously.

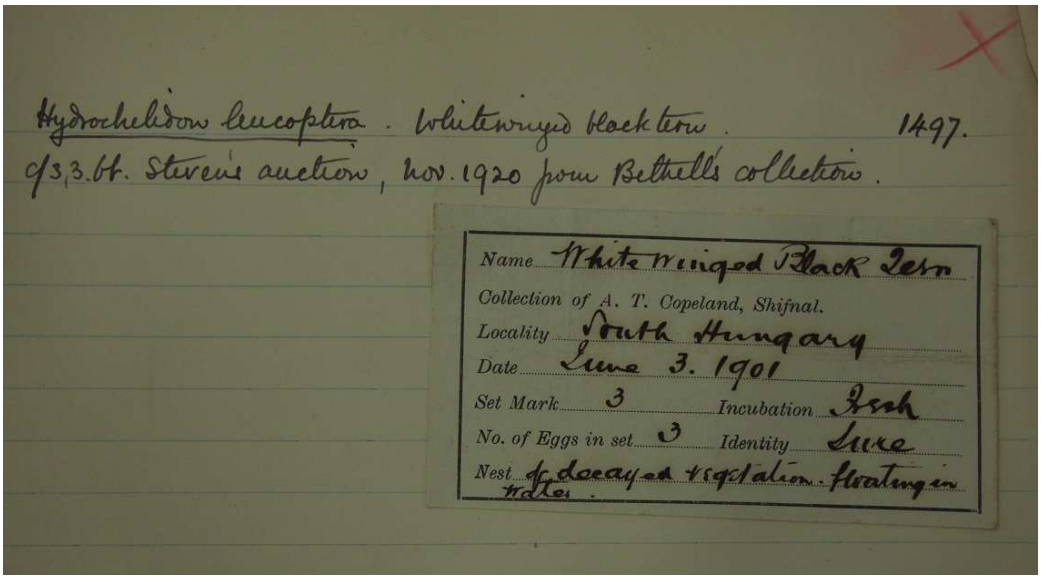


Figure 5.22 Record of clutch purchased at auction in November 1920 by Mackenzie, along with a data card recording the circumstances in which the clutch was originally collected in 1901.
(© CSG CIC Glasgow Museums Collection)

Motivations: collectomania*, or the joys of possession*

As well as enjoying the process of collecting, many collectors were of course also motivated by a desire to own eggs, the physical *results* of their efforts. Prynne (1963: 30) described this desire of ownership as *collectomania*, and he understood it as a competitive urge whose 'fundamental objective ... is the personal possession of something superior to that possessed by another'. Competitive urges arguably contributed to some collectors being prepared to pay large sums of money for particularly notable or rare specimens. More broadly, however, collectors may have been motivated simply by 'collecting for the sake of collecting', irrespective of comparisons with other collectors. This motivation for collecting was often implicitly or explicitly treated as fatuous by the self-appointed proponents of 'scientific' oology. For example, in an article urging specialisation by oologists, 'Nemo' (1930: 35) declared:[145]

> There is to-day less excuse than ever there was for the so-called egg-collector who merely amasses a lot of pretty specimens and none at all for the collector who aims to acquire, by some means or other, specimens of all the eggs of his own or some other country. The mere possession of such a collection does not redound to his credit and serves no useful purpose whatsoever.

'Nemo''s disdain implicitly extended to a large proportion of the British egg-collecting fraternity, for whom collecting the eggs of as many British breeding birds as possible was a long-term goal, although he added a caveat in defence of field collecting that '[t]he man who ranges far and wide and finds for himself eggs of all or many of the eggs of his country has at least attempted and done something' (*ibid.*).

Prynne (1963: 30) defended *collectomania* as a natural instinct, noting that 'collecting anything for the gratification of possession has tremendous appeal and fascination for most people', but he also conceded that it could be taken to extremes. In this vein he quoted a letter to him from Dr H.M.S. Blair, referring to a deceased well-known collector:

> 'I only take the odd specimen', he used to say. ... Actually there was no length to which he would not go when he was in the Field. At times he would descend to down-right lying! His excuses for taking the commonest eggs were quite amusing; 'But, my dear fellow, this is a most unusual type,' he would say of a very ordinary Willow-Wren ... (*ibid.*: 31)'

[145] Pseudonyms were sometimes used by contributors to *OR*, usually when discussing controversial matters. In this case the reason given was that 'I feel that many truly scientific oologists will say that I have written nothing new' ('Nemo' 1930: 36).

The uniqueness of every single egg could easily contribute to a collector convincing himself that yet another clutch was an essential addition to his cabinet, whilst being in thrall to the fetishistic type of collecting identified by Pearce (1994b), with its barely controlled amassing of similar samples, rather than careful selection of representative examples. Algernon Taylor resisted this type of temptation by limiting his collection to 'no more than six clutches of each species, no matter whether common or rare, or whatever the potential for variety' (Cole and Trobe 2000: 253). Most collectors were not so restrained, however, and we can arguably see the results of *collectomania* in the surfeit of crow eggs in the GM collections, which proved plentiful and easy to collect, and therefore difficult to resist for many collectors, despite adding nothing new to their collections in terms of taxonomy or significant variation.

Motivations: aesthetic enjoyment

Another potential motivation for egg-collecting was aesthetic enjoyment. This was generally seen as a less laudable or acceptable motivation for the egg collector than scientific advancement, or enjoyment of field sport, although perhaps more acceptable than simple *collectomania*. 'Nemo's' reference to 'pretty specimens' implies that aesthetic appreciation was a feminine motivation, less appropriate for oologists than the masculine virtues of the quest for scientific knowledge. [146]

Collectors did reveal their aesthetic appreciation of eggs, however, and in the GM collections the notes of Hay contain numerous references to eggs as 'beauties'. Two examples, among various others, include:

> I got one clutch of hoodies in 4 beauties. (16 April 1949)
>
> Picked up the Bonksy's nest easily with 2 beauties. (1952)

In these notes the term 'beauties' could be interpreted simply as boyish exuberance, but elsewhere Hay explicitly expressed his aesthetic admiration for some of his finds:

> On way back found Goldcrest in 10. It was a beautiful nest in L.H.S. strip of young spruces near the main Alloway road. (21 April 1949)

[146] Some 'cognitive' theories in environmental aesthetics, such as those of Carlson (1981), are also dismissive of the simple aesthetic enjoyment of natural things, claiming that true aesthetic appreciation of nature only comes about through scientific understanding of its workings.

> I was rewarded well with 6 beautiful [nuthatch] eggs. The best I have ever seen. (28 June 1949)

In *OR*, other collectors also expressed an aesthetic admiration for eggs, such as Serle (1938: 14) describing eggs of the Nigerian 'Moustache Warbler' as 'exceedingly handsome'. The delight of some collectors in the beauty of their finds was hard to suppress, with Pitman describing eggs of *Rhinoptilus chalcopterus* as 'singularly lovely' (*OR* 1932: 16) and the nest of *Erannornis Longicauda Teresita* as exhibiting 'exquisite symmetry and construction ... The nest can justly be described as one of the most beautiful I have ever seen' (*OR* 1934: 62, 64). Although variety clutches may have ostensibly been collected for the purposes of dispassionate comparison of characteristics within the specimens of a given species, they were also often visually delightful as well, and it is unlikely that this was not at least part of the attraction for collectors.[147] Prynne (1963: 38) defended the collector driven by aesthetic purposes, commenting that 'I have nothing to say against such collectors provided they are genuine, conscientious and scrupulous in their pursuits'.

Figure 5.23 The beautiful cappuccino shading of a clutch of lesser kestrel eggs, originally collected by C.B. Horsbrugh in Cyprus on 2 May 1909.
(© CSG CIC Glasgow Museums Collection)

[147] Douglas Russell of the Natural History Museum mentioned the 'exquisite bioceramics' of eggs in conversation.

Motivations: Financial gain

Financial gain was considered by Prynne to be an ignoble reason for collecting, and '[t]he dealer in wild birds' eggs is therefore held in great disrepute' (Prynne 1963: 30)[148]. For example, dealers were debarred from joining the British Oological Association and its successor, the Jourdain Society (see Chapter 6). Some collectors, while not being full-time dealers, did engage in some selling of eggs. The world of egg-trading will be discussed briefly in Chapter 6, but not considered further here.

The collector: character

Intertwined with the question of what motivated egg collectors is the issue of their character, and whether certain characteristics were prevalent among them. One useful source is the obituaries that appeared in *OR*, mostly in the 1950s and 1960s, and Cole and Trobe (2000, 2011) provide further evidence. With both these sets of sources, however, it is important to be mindful of the authors' own prejudices, as well as the possible entanglement of what egg collectors were actually like with characteristics that may have been projected onto them. Alongside potentially allowing us to 'read between the lines', these rhetorical devices are interesting in themselves in showing what qualities were particularly admired, and building up a picture of the ideal or archetypal oologist. Many of these characteristics reflected competence in aspects of egg-collecting both physical and cerebral.

Excerpts from three illustrative obituaries (of John Walpole-Bond, Kenneth Macomb Chance and Guy Mannering, respectively) can be given here:

> I have tried to draw a picture of a gay, unconventional, tough ornithologist, who acquired an immense knowledge of British birds. Unlike many amateur naturalists, he took great pains to record his observations. (E.C.L.S. June 1958: 31)[149]

> Both Kenneth and Edgar [Chance] were first class ornithologists and dynamic in the field. Their determination and persistence meant they knew little about defeat. (D.W.M. February 1966: 20)[150]

[148] Prynne conceded that dealers could be useful as an intermediary in re-circulating second-hand eggs, but concluded that on balance this was still not enough of a boon to permit them to exist.
[149] Clive Simson (see note in Chapter 4).
[150] Probably Donald Woodward Musselwhite.

> His energy, toughness and enthusiasm never deserted him ... His knowledge of Kent and its ornithology was prodigious ... (G.E. Took, November 1966: 80)

A few repeated themes can be noted. Firstly, all three collectors were described as ornithologists, which emphasised that oology was, for its protagonists, a valid part of ornithology. Collectors' knowledge was lauded as being 'immense' or 'prodigious', and Walpole-Bond's meticulousness in recording data was also considered worthy of comment, while similarly, Edgar Chance (D.W.M. 1956: 13) was praised for his 'meticulous care' in recording observations. Grittier characteristics, such as 'energy, toughness', 'determination and persistence', were mentioned in all three obituaries, and these epithets are most obviously applied to activity out in the field (as discussed in Chapter 4). More generally, H. Kirke Swann was praised as 'an indefatigable worker in his favourite science' (*OR* 1926: 72), and M. de Chavigny as 'a redoubtable champion in the cause of serious oological study' (Congreve 1963: 43).[151]

These obituaries speak of the tirelessness, even doggedness, of collectors in the pursuit of eggs and knowledge about them. Similarly, in a book review, Pickford (1967: 13-14) praised 'Desmond Nethersole-Thompson's amazing wife Carrie' for possessing 'a degree of courage, fortitude and enthusiasm which is quite unique in the gentle sex'. It is notable that both Took and Pickford used the word 'enthusiasm', and D.W.M. also described Chance (1956: 13) as an 'enthusiastic oologist'. In Chapter 4 I noted how the 'derring-do' aspects of field oology allowed for expression of a traditionally masculine form of enthusiasm, but other motivations for egg-collecting discussed above such as aesthetic enjoyment, the pleasures of ownership, and the more cerebral satisfactions of amassing knowledge about eggs and breeding birds, provided other ways in which collectors could indulge their enthusiasm.

Enthusiasm and obsession

Enthusiasm might on the face of it be recognised as a broadly positive characteristic, but in contemporary society to display enthusiasm for a specialist area of study is to run the risk of being tarred with one of contemporary society's ultimate put-downs, that of being a

[151] Harry Kirke Swann wrote extensively on ornithology, including editing a short-lived journal, *The Ornithologist* (1896-97), described on its cover as 'a monthly magazine of ornithology and oology'. GM has some bird skins acquired from him in 1900.

'geek', 'trainspotter' or 'anorak'.[152,153] Cocker (2008: 171) notes how he was invited onto *The Big Breakfast* to discuss his book about the birdwatching community, and jumped at the chance to publicise his book, but his publisher begged him to decline the invitation, as 'I was only being asked, she said, so that Johnny Vaughan, the host, could take the piss'. Cocker (b.1959) recalls that, even in his youth, being revealed as a naturalist was often to be derided as a 'sissy', and that this insult morphed into being seen as 'sad' in contemporary parlance. He muses:

> [W]hy is it that people who are absorbed by something are seen as sad? ... What strange presumption fortifies the unengaged and dispassionate to express this scorn for the enthusiast?
> ...
> [F]or me it reverses the true state of affairs. To be engaged is to be a part, to be absorbed and fulfilled. To be cool, to be detached from things and have no passionate feeling is the real sadness. (Cocker 2008: 171, 186)

Another way of looking at this matter is that a level of activity seen as enthusiasm by proponents of a discipline might instead by characterised as 'obsessive' by outsiders. Cole and Trobe (2000; 2011) only occasionally use the term 'obsessive' and, unsurprisingly, it did not appear in any of *OR*'s obituaries. Adjectives such as 'passionate' or 'dedicated' may be a less pejorative way of hinting at this type of characteristic. Arguably almost everything worth knowing about anything has come from the research of somebody who became at least partially obsessed with their subject. Davis identifies the methods established in science and academic specialisation that achieved dominance in the nineteenth century (and from which oology emerged) as bearing:

> … all the hallmarks of obsessive behaviour – fixation on one thing, repetitive interest in that thing, fixed attention to the details, copious notes, observations, repetitive and focused habits of study, and a strong compulsion to do all this'. (Davis 2008: 24)

Perhaps this is particularly the case with natural history, which requires hours of careful and patient observation, including, in the case of egg-collecting, the effort required to take the eggs as well.

Even as they devoted considerable amounts of time and attention to oology, many notable

[152] What that makes this author, who is enthusiastically studying a group of people who liked to study enthusiastically, is anybody's guess.
[153] Geoghegan (2013) notes how even within a group of enthusiasts, the more driven individuals can be tarred by others in the group with the same derogatory labels that outsiders tend to use for the whole group.

egg collectors were also highly enthusiastic participants in other activities, sometimes including other forms of collecting. For example, Sir B. Guy Harrison 'was also greatly interested in astronomy, botany and entomology' (Cole and Trobe 2000: 108), while Jim Birkett, in addition to his mastery of rock climbing, was also 'an expert botanist and found most of the Lakeland rarities' (*ibid.*: 18). Entomology was a popular companion hobby to oology, practised by individuals such as Charles Bellamy, Charles Horsbrugh and Gurney Brasnett, as well as the aforementioned Harrison. Some oologists also partook of traditional field sports, such as Stanborough 'Reggie' Smith, described as 'a fine shot and a first class fisherman and the countryside was his life' (Took 1967: 22).[154] Others were highly competent at competitive sports, including Frank Whatmough, who played rugby league for Rochdale Hornets (Cole and Trobe 2000: 276).[155] This roll-call of activities suggests that many oologists, if not all, were not singularly obsessed with egg-collecting. Instead, arguably, it was just one facet of their general appetite for life.

Sociability

Another aspect of collectors' characters was their sociability or otherwise, and the extent to which they interacted with other collectors, which will be considered further in Chapter 6. These aspects were not often referred to in *OR* obituaries, but they often find mention in Cole and Trobe (2000). A good proportion of the collectors profiled were married and many also had children, as did Cross, Arbuthnott and Robertson (and possibly numerous others) of the GM collectors. Some collectors were evidently 'clubbable', such as Don Musselwhite, who had 'real enjoyment of a drink and a smoke in the company of his family and friends' (*ibid.*: 187), while Reggie Smith was known for his 'geniality' and 'legendary' hospitality (*ibid.*: 236). In contrast, Percy Bunyard was described as 'a somewhat complex individual who, whilst commanding respect among his peers, was not particularly popular with them' (*ibid.*: 27). Qualities that contributed to successful field trips were particularly highly regarded. For example, 'Roderick Dobson ... seemed always to be full of energy and good humour, keeping companions happy and enthusiastic throughout long days in the field' (*ibid.*: 65), and 'Pop Allin was a pleasant and unselfish companion' (*ibid.*: 5). A sunny disposition was not essential, however, as John Mulholland was very active with other collectors despite his 'dour northern mien' (*ibid.*: 184). Other collectors, such as John Forrest (*ibid.*; 79), 'invariably worked without the companionship

[154] Cole and Trobe (2000: 236) note that Smith was also 'an accomplished water colour artist'.
[155] Rugby league is a mainly working-class pursuit.

of other egg collectors', although he was often accompanied by his wife. Even less sociable was the unmarried Ron Nichols, described as 'a shy man who disliked social functions' and 'a very difficult man to know intimately' (*ibid.*: 193). Even he attended Jourdain Society dinners, however, whereas some other collectors eschewed the social side of oology altogether.[156] The most reclusive collectors may have kept themselves almost entirely to themselves, and therefore evidence of their activities is less likely to have percolated into the written record of oology.

Conclusion

This chapter has considered the practices that took place in order for birds' eggs to be inducted into an egg collection, such as blowing eggs, storing them and writing accompanying data. As has been discussed, these practices can be linked to work in science studies which seek to describe how scientific knowledge is produced by a series of translations, from the raw material of the field, to physical specimens in a collection, and thence to the fully mobile and reproducible form of data. Collections differ widely in their range, both geographical and taxonomic, with some types of eggs proving especially attractive to different collectors. This chapter has also focused on the individual collector from a number of different angles. Collectors show fairly marked biases in terms of gender, class and profession, although they hailed from a wide variety of ages (and for some collectors, oology was an almost lifelong pursuit). Various different motivations for egg-collecting have been considered, which may have acted upon a collector simultaneously. Collectors' characters have also been investigated, bringing up questions of enthusiasm, and its potential slide into obsession. The sociabilty of collectors also varied widely, from gregarious, clubbable characters to much quieter, even withdrawn individuals. While some collectors were content to plough a lone furrow, or perhaps nurture purely informal links with other collectors, a number of egg-collectors sought to develop more formal social links. These collective institutions of oology will be the focus the next chapter.

[156] Cole and Trobe (2010: 194) report that '[i]n the summer of 1979 while he was attending his last Jourdain Society Dinner, his bungalow was broken into and over 600 choice clutches were stolen, never to be recovered. The cream of his collection had gone, and this left him a broken and bitter man.' Rumours persist as to the identity of the burglar, and whether he knew that Nichols would have been away from home that night (and hence a fellow Jourdainian or follower of the Society's activities).

Chapter 6. Collecting as Collective: The Formal Social World of British Egg-Collecting

Introduction

This chapter investigates the formal, collective spaces or institutions of egg-collecting, encompassing associations, meetings and publications.[157] These spaces provided opportunities for enthusiasts, sometimes geographically dispersed, to come together to delineate, celebrate and defend oology. Fine (1979: 734) defines an 'idioculture' as 'a system of knowledge, beliefs, behavio[u]rs, and customs shared by members of an interacting group to which members can refer and employ as the basis of further interaction'. This chapter seeks to understand how the different formal spaces of British oology, which were created and peopled almost entirely by amateurs (as opposed to professional scientists), provided a means and a mechanism for an 'idioculture' of oology to exist, and eventually to wither and die. Particularly important are the ethical debates that surrounded oology in the early twentieth century, conducted through a variety of print spaces, from specialist oological periodicals to the national press.

This chapter is structured as follows. Firstly, the different formal spaces of oology are introduced. Consideration will be given as to what each of these spaces helped oologists to achieve, individually and especially as a collective. The organisational space of the British Oological Association is discussed, along with formal meetings where oologists could meet in person to share their enthusiasm and debate issues. Next, the commercial trade in birds' eggs, through dealers, auction houses and other conduits, is also covered briefly. A number of oological periodical publications are then discussed, each providing a space where oologists could convene in print, with concerted attention being devoted to *The Oologists Record* (*OR*), the contents of which shed light on many aspects of oology discussed in the previous two chapters, such as the valorisation of fieldwork and concerns with good practice.[158] Through the pages of *OR*, oology is revealed once more as an activity with aspects of scientific endeavour and more visceral forms of enthusiasm.

[157] More informal connections between individual collectors are discussed on an *ad hoc* basis elsewhere.
[158] As explained in Chapter 3, precedents for using specialist publications to scrutinise particular interest communities can be found in a number of articles in the *Journal of Historical Geography* (e.g. Philo 1987; Cant 2006; Bressey 2012).

Having introduced the different collective, organisational spaces of oology, a more chronologically-ordered account will be given of oology during the early to mid-twentieth century. I contend that, while ostensibly a sign of oology's popularity, the establishment of formal organisational structures can instead be read as indicating an increasing estrangement from mainstream ornithology, and thus a measure of weakness rather than growing strength. Close attention will be paid to ethical debates that took place in the 1920s and 1930s between supporters and opponents of egg-collecting, in print sources such as *OR*, the journals of other interested groups, books by prominent ornithological commentators, and even the national press; together, these publications formed an (immaterial) arena for ethical contestations about the validity of egg-collecting as a practice. The decline of oology after the Second World War will then be followed, mainly through the pages of *OR*. The last major section will focus on *Bird Land* and the Northern Oological Society, which just after the War provided an alternative set of collective spaces for younger oologists. These spaces were closely intertwined with each other but largely separate from the other institutions of oology, so they have been discussed separately in this chapter.

While this chapter (and the thesis more generally) does not seek to recount a comprehensive social history of British egg-collecting, it does investigate aspects of this history that have contributed to the present-day status of egg collections as difficult museum holdings. The early to mid-twentieth century, when the transition of egg-collecting from a popular pastime to esoteric, criminal activity mainly occurred, is crucial in this respect, and the formal institutions of egg-collecting also date from this period (which is not a coincidence). In addition, the practices, predilections and prejudices of oologists revealed through the published print spaces of oology, particularly *OR*, provide a wealth of material for the other chapters in this thesis. For a variety of reasons, the GM collectors discussed in earlier chapters are thinly represented in the written records of the oological institutions and consequently do not feature prominently in this chapter.

The British Oological Association (BOA)

The British Oological Association (henceforth BOA) was formed in 1922. As obtained from a later printing, its Rules stated:

That the aims of the Association be:-

(a) The advancement of the science of Oology.
(b) The exhibition of eggs and other objects of interest.
(c) The reading of papers and discussions relating to the science.
(d) The discouragement of irresponsible collecting and wanton destruction of eggs. (*OR* 1933b: 71-72)

Another clause declared that '[a]ny persons, other than dealers, interested in the study of Oology, shall be eligible for membership'. By 1935 a further rule had been added specifically debarring 'Ladies' from attending either as members or as guests (BOA 1935: 3).[159] The emphasis placed on oology as a *science* in these rules is noteworthy. By setting up their own organisation, oologists operating collectively sought to establish and justify their interest as scientific study, not merely a hobby. In addition, the injunction against 'irresponsible collecting' marked out a further demarcation between valid and invalid types of collecting. This implied the distinction already discussed in the last chapter between the 'true oologist', driven by laudable scientific aims, and the mere 'egg collector' accumulating eggs for selfish enjoyment. Reference to 'irresponsible collecting and wanton destruction of eggs' implies that concern already existed in some quarters about that the taking of eggs in excessive numbers, as will be discussed later in this chapter.

The BOA published its own *Bulletin of the British Oological Association* (henceforth *BOA Bulletin*), which consisted entirely of reports of recent BOA meetings (discussed below), and in the 1930s also included the organisation's rules and membership lists. These lists show that individual membership rose from 101 in the 1930-32 *BOA Bulletin* (1933) to 119 in the 1936-38 *BOA Bulletin* (1939), along with a few museums and universities also subscribing. Of the collectors associated with the GM collections, membership lists record that Loyd, Mackenzie and Arbuthnott's occasional companion Steward were all members. In the 1936-38 list (*ibid.*), 14 members lived outside the UK, including one on Jersey and four in the Irish Free State. Of the remaining 105, the geographical concentration is striking, with only around a quarter living outside London and South-East England, including only five from Northern England (including Steward), three from Scotland (including Mackenzie) and a lone adoptive Welshman (Hewitt).[160] The elevated social status of some members is indicated by the presence of numerous Captains, Majors and Colonels, and a Rear-Admiral, along with two Reverends, a Professor and one knighted individual (Sir C.F. Belcher, discussed later).

[159] Perhaps this clause was added after a 'lady' had attempted to join, but there is no evidence for this.
[160] Hewitt is mentioned briefly in Chapter 4 in the discussion of great auk eggs.

It is pertinent to note what membership of the BOA enabled oologists to achieve. By formalising egg-collecting under the auspices of the BOA, its members could officially declare themselves 'oologists', as opposed to being simply ornithologists on the one hand, or 'mere' collectors on the other. They also gained access to a network of kindred spirits across the UK and a few more worldwide, and the listing of members' addresses in the *BOA Bulletin* may have encouraged members to pursue informal links and correspondence with each other. In addition, the BOA also held regular meetings which provided the opportunity for members, if they were able, to meet their fellow oologists directly.

Oological dinners: dining with eggs

The meetings of the BOA were in fact a continuation of an already existing tradition of oological dinners, which had started informally in 1911, attended by a few members of the British Ornithologists' Union (henceforth BOU) and chaired by Lord Rothschild. In 1915 these meetings were formalised when an 'Oological Dinner ... to which many naturalists specially interested in Oology were invited, was held on Tuesday, Sept. 7th, at Pagani's Restaurant[161], London' (*The Ibis* 1916: 186). The dinner committee comprised 'Lord Rothschild, E. Hartert, E. C. Stuart Baker, Rev. F. C. R. Jourdain, P. F. Bunyard, and C. Borrer' (*ibid.*), a list of notable names in early twentieth-century oology.

> The CHAIRMAN [Lord Rothschild], in his opening remarks, stated briefly the object of the present meeting. He said that hitherto the study of oology had scarcely received the attention which it deserved at the hands of scientific naturalists, and that many field-naturalists felt that annual (or possibly more frequent) gatherings like the present one, would give them opportunities of discussing oology, exhibiting rare eggs, and generally stimulate investigation in this branch of science. (*ibid.*)

At the meeting, some of the attendees exhibited specimens.[162] For example, Percy Bunyard presented a number of variety clutches, mostly British, including erythristic (red-tinged) eggs of the rock-pipit and spotted flycatcher, alongside a 'very remarkable' nightjar clutch from Kent with unusual markings. Lord Rothschild's exhibits were more exotic,

[161] Pagani's, on Great Portland Street, was the favourite haunt of a clientele of artists and musicians. 'In the 1890s, Oscar Wilde once dined on calf's brains and lark-and-steak pie in the Artist's Room with Lillie Langtry and the Prince of Wales'. (http://1890swriters.blogspot.co.uk/2013/09/the-ten-best-restaurants-in-london.html, accessed on 28 October 2015)

[162] A full list of attendees – members and their guests – was only published from the third meeting onwards (attendance estimate taken from *OR* 1933: 70).

comprising series of bird of paradise clutches and others of Galapagos finches, as well as 'a pair of perfectly spherical eggs, one of a Bustard from Nyasaland (*Lissotis melanogaster*), and one of a gigantic land-tortoise, for comparison of shape' (*ibid.*: 188). Various other oologists including Stuart Baker and Jourdain also presented clutches.

Following the formation of the BOA, its first dinner meeting took place on Wednesday 17 January 1923, at Pagani's. As the President, Lord Rothschild, was unavailable, it was chaired by Dr Ernst Hartert, Director of Rothschild's museum at Tring.[163] 'Owing to the unfavourable weather and other causes, several members were prevented from attending, including Mr. H. L. Popham who was unavoidably prevented from showing his series of Siberian Turdidae' (BOA 1927: 1). Those who did manage to exhibit at the meeting included Stuart Baker, the Rev. Hale, Jourdain and Musselwhite. For the third BOA dinner on 12 September 1923 a complete list of attendees was published, showing that 23 members and seven guests were present. As well as the names mentioned at the first meeting, the members included Bunyard, Chance and Norman Gilroy.

For the first few years, between two and four meetings took place each year, all at Pagani's (Figure 6.1). Of the GM collectors, Loyd and Mackenzie each attended once. At the fifth meeting, on 17 September 1924, Loyd presented six clutches of rock pipit, plus a four-clutch of osprey taken by an Edward Dalrymple in 1897, containing three typical eggs plus one which was 'rotten, … very large and in every respect closely resembles the egg of an Egyptian nightjar' (*BOA Bulletin* 1927: 39). Mackenzie attended on 20 November 1929, exhibiting 'what I believe to be the first authentic eggs of *Cerasophila thomsoni*, Bingham's White-headed Bulbul' (*BOA Bulletin* 1930: 145). He explained where he found the nest in Burma, and gave descriptions of the eggs, including average and extreme measurements. Steward is recorded as having attended twice, both in 1931. The first time, on 23 September, he was a guest and, along with Gerald Tomkinson and George Lings he exhibited rough-legged buzzard clutches 'which they got this summer in Norwegian Lapland, showing what large clutches are laid in a lemming year' (*BOA Bulletin* 1933: 74). On 25 November he attended as a member, but did not attend again, possibly because of the distance from his home in Windermere (a basic geographical factor in the creation of any collective with scattered members).

[163] Rothschild's museum is now part of the Natural History Museum, and is home to its bird and egg collections.

Meeting in person helped to build a camaraderie and ethos around egg-collecting as a practice, at a time when, as will become clear, it was becoming increasingly marginalised by the ornithological establishment. Attendees would have been able to relax and indulge their passion in like-minded company. Moreover, oologists of a certain stripe enjoyed 'jousting' with peers, which could also take place in meetings of the BOC (see below) that some prominent oologists (including Bunyard, Jourdain, Musselwhite, Cochrane and McNeile) continued to attend.[164] In particular, Bunyard and Jourdain waged a:

> … long-running feud which was such a feature of meetings of the B.O.C. in the 1920s. These meetings were invariably very well attended, perhaps in anticipation of another round of dissension between the two men, whose personalities were so confrontational. Bunyard's retorts, abusive in the extreme, would be countered by Jourdain's pointedly sarcastic rejoinders. (Cole and Trobe 2000: 27-28)[165]

Other members were also chastised on occasion by Jourdain or Lord Rothschild, as '[e]ach regarded it as their absolute duty to correct the slightest deviation from fact in any statement made by a member' (*ibid.*: 132). Less prominent attendees at the dinners could sit back and enjoy the spectacle, as well as marvelling at the encyclopaedic knowledge of eggs boasted by the main protagonists. As will be shown later, despite only being attended by a handful of oologists, BOA meetings and earlier Oological Dinners had repercussions far beyond the central London addresses where they convened.

Figure has been removed due to Copyright restrictions.

Figure 6.1 Meeting of the BOA at Pagani's, believed to be in 1936. Jourdain is seated below left of the man standing in the light-coloured suit, Stuart Baker is seated third from the left at the rear, and Musselwhite is seated fifth from the left on the row in front. (Cole and Trobe 2000: xvi)

[164] Reports of the BOC meetings, however, indicate that, although exhibits of skins and eggs continued, increasing emphasis was placed on observational reports of birds and their behaviour.
[165] Allen (1994: 214) notes that Jourdain was a 'notorious '*pastor pugnax*''.

Excursus: The institutions of egg-trading

A further set of spaces integral to egg-collecting were the institutions of egg-trading and dealing. Although collecting one's own eggs was widely regarded as the preferred means to build a collection, many collectors were also prepared to buy eggs. Some 'cabinet men' amassed their entire collection in this fashion, whereas others only purchased rarities that could not be obtained through their own field outings. To service this demand, a network of egg dealers emerged in the late nineteenth century, peaking around 1900 when 15 main dealers traded in various parts of the UK. The longer history of egg dealing has been covered in detail by Cole (2006) and will not be discussed in detail here. Auction houses provided another conduit for egg sales, with some major collectors dispersing their collections in this manner. By far the most important location for natural history sales, including birds' eggs, was Stevens' Auction Rooms in Covent Garden, London; eggs were sold on the premises as early as 1817, with specialist oological sales established in the 1850s (*ibid.*). The number of significant sales events peaked in the early twentieth century, with 47 in 1900-1909, and 41 during the following decade, falling away to 17 in the 1930s. Bunyard's collection marked the final oological sale in 1939, before Stevens' closed in the 1940s (*ibid.*). The passing of the Protection of Wild Birds Act 1954, which prohibited the sale of birds' eggs, was the final nail in the coffin for the spaces of egg-trading.

In the GM collections, there are records of some collectors buying eggs from dealers and auctions. Mackenzie recorded buying eggs from dealers such as Watkins & Doncaster of Strand, London, who were also notable as purveyors of naturalists' equipment such as the egg-blowing tools discussed in Chapter 5. Mackenzie also bought eggs at auction; for example, he bought eggs (mainly cuckoos') at the sale of the late Vauncey Crewe's collection in 1925, and earlier spent £14.6.0 at a Stevens' sale in 1920, '[m]uch less than intended, mostly outbid by an Ellis', indicating competition for desirable clutches.[166] Not all auctions proved attractive to buyers, though, and, when the second tranche of Lewis Loyd's collection was sold at Stevens' in 1937, 'attendance was extremely poor, and ... many rare and valuable sets were literally thrown away' (*OR* 1937a: 41). The Mackenzie notebooks also contain data cards from the collection of Stuart Baker, who Walters (2005: 13) notes, '"dealt" in eggs in a big way'. Walters (*ibid.*) also mentions concerns that Stuart Baker, along with other dealers, may have artificially made up some fake large clutches

[166] The Crewe auction was reported in *OR* ('A Correspondent' 1926) and also included the sale of a great auk egg, mentioned in Chapter 5.

from a number of smaller genuine ones, as larger ones were more unusual and therefore more valuable.[167]

Publications

The BOA provided an organisational space for egg-collecting enthusiasts, and its meetings (along with earlier oological dinners) allowed some members and guests to meet in person to share their knowledge and enthusiasm. Another series of spaces for oologists to convene in were those created in print. These spaces are particularly significant to this thesis because of the rich material that they, especially *The Oologists' Record* to be considered at length presently, contain about the practices, predilections and preoccupations of oologists. The *BOA Bulletin*, introduced above, provided a print space for oologists who were members of the BOA Its contents were limited to reports of BOA meetings and occasional listings of rules and members, and, as such, they are primarily of interest because they provide evidence of the other collective spaces of oology – the BOA and its meetings – that would otherwise largely be lost, perhaps only recorded in a few private diaries. The *BOA Bulletin* does not, however, reveal a great deal more about the world of oology. A number of other publications allowed for a wider exchange of knowledge and views.

The Oologists' Exchange & Mart and *The Quarterly Circular of the Oologists' Correspondence Club*

The first appearance of *The Oologists' Exchange & Mart* (henceforth *OE&M*), a dedicated British oological periodical, was on 1 June 1919, pre-dating the formation of the BOA. Editor Kenneth Skinner declared its mission thus:

> … while encouraging scientific collecting in every possible way, no effort is spared to protect the rarer British breeding species and to discourage the random collecting of eggs and the mere accumulation of specimens. (*OE&M* 1919: introductory page)

Even earlier than the rules drawn up for the BOA, this injunction indicates defensiveness towards egg-collecting, seeking to demarcate 'scientific collecting', assumed to be valid,

[167] The problem of fakes and hoaxes goes back a long way. For example, auctions at Stevens' in 1861 and 1863 included eggs purporting to have come from Arran, but included species that had never nested there (*OR* 1959).

from other forms. Circulation of *OE&M* was limited by nomination and subscription: a potential reader had to 'be proposed and seconded by existing subscribers, or must, if required, give to the Editor satisfactory references as to his standing' (*ibid.*: 1). As with the BOA, dealers were specifically debarred from membership, but lists of subscribers indicate that, in contrast to the BOA, women subscribers were permitted, although still very rare.


The Oologists' Exchange & Mart.

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No. 1.] [June 1, 1919.

Figure 6.2 Title of the first *OE&M* (1919).
(Material sourced from David Clugston)

OE&M was initially published monthly (Figure 6.2). Each edition comprised four to eight pages (approximately octavo in size), with a mixture of short notes and longer articles about aspects of collecting practice and experiences, such as 'A day's nesting in Lower Egypt' (Raw 1920), 'Series collecting – Yellow Hammers in particular' (Skinner 1920), and 'European egg supplies and values' (*OE&M* 1920a). There were also advertisements by subscribers wishing to buy, sell or exchange eggs, included as a separate typed sheet: 'Good sets of Rock Pipit and Rock Dove offered in exchange for other good sets. J. McCrindle, Post Office, Dunure, Ayrshire.' (*OE&M* 1919: n.p.) From 1921, when *OR* was launched (see below), the now quarterly *OE&M* became almost entirely devoted to subscribers' advertisements and a few brief editorial comments and announcements, including names and addresses of new members. By this time it also carried a warning on the masthead: 'CONFIDENTIAL: Not to be shown to Non-Subscribers.' (*OE&M* 1921)

In 1928 the name of *OE&M* changed to *The Quarterly Circular of the Oologists' Correspondence Club* (henceforth *OCC*), with an explanation that the earlier incarnation 'has been the subject of a good deal of criticism ... occasioned for the most part simply by reason of its name' (*OCC* 1928: 2). The fact that the name 'Exchange & Mart' attracted criticism implies that commercially-driven collecting may have been a particular cause for concern in some quarters. The new name was chosen because 'though we have no governing body, we are a Club, associated together for mutual co-operation' (*ibid.*). As well as continuing to advertise for eggs, some subscribers occasionally also used the *OCC*

to request companions on nesting trips. It ceased publication in 1936, after a sharp drop in subscribers to only 77 from 139 in 1934, which had held up well from 153 in 1926.[168] Comparing the 1934 subscription list with a 1935 list of the 118 members of the BOA (*BOA Bulletin* 1935) shows 39 names in common, so there was some overlap between the two constituencies.[169] Over a third of the subscribers came from outside the UK, compared with only around a tenth of the BOA members, which suggests that it was a useful forum for domestic and international correspondents to exchange eggs from parts of the world with markedly different bird life from their own.

The Oologists' Record

In the October 1920 edition of *OE&M* there appeared an announcement profiling a new quarterly periodical. *The Oologists' Record* (*OR*) was to be published, with no requirement for subscribers to be proposed by others. It would 'be practically the paper now published but without the names of new subscribers and without any exchange advertisements' (*OE&M* 1920b: 73). The oological publications and organisations considered hitherto all shared the characteristic of being essentially private, with access restricted to members or subscribers. With the introduction of *OR* in 1921, oology gained a public mouthpiece available, ostensibly at least, for anyone interested to read. Probably because *OR* was publicly available, lists of subscribers were not published. In addition, the number of subscribers was not mentioned elsewhere in the journal, even in passing. It is possible to glean a minimum number, however, from the list of subscribers to *OE&M* and *OCC*, as they were also obliged to purchase *OR*. In addition, surviving copies in the libraries of institutions such as the Natural History Museum and the Scottish Ornithologists' Club indicate that these institutions also subscribed.

The *OR* ran from 1921 to 1969, except for a hiatus between 1940 and 1945. It was published quarterly, usually with around 24 pages in each edition before its 1940s break, and around 16 pages thereafter. In total there were 171 separate editions. The journal retained the same dimensions (eight by five inches) throughout its entire history. Until the mid-1960s, it was also remarkably consistent in style and typeface, with few significant differences discernible between editions published in 1921 and those published forty years

[168] Membership figures taken from (*OCC* 1936: 6), (*OCC* 1934: 8) and (*OE&M* 1926: 11) respectively.
[169] One of the subscribers and also a BOA member was Steward.

later. The editors were as follows:

1921-1935	Kenneth L. Skinner
1935	Skinner, B. Guy Harrison and Rev. F.C.R. Jourdain (plus F.G. Lupton in March)[170]
1936-1939	Harrison and Jourdain, assisted by J.A. Walpole-Bond from 1937 to 1939
1946-1964	Major W. M. Congreve assisted by Dr. H.M.S. Blair, F.Z.S.
1965-1969	R.J.B. Christian, B.Sc.


THE OOLOGISTS' RECORD

A Quarterly Magazine devoted to the advancement of Oology in all parts of the World.

EDITED BY KENNETH L. SKINNER.

VOLUME I - - - - - - - - - - 1921.

HARRISON & SONS, Limited, Printers in Ordinary to His Majesty, 45, St. Martin's Lane, London, W.C. 2.

Figure 6.3 Cover of *OR*'s first edition (1921).
(Material sourced from David Clugston)

A few characteristics stand out about the editors and other contributors, broadly in line with the discussion of collectors' characteristics in Chapter 5. They were almost exclusively male; which explains why the following discussion refers to 'he', 'him' and

[170] Harrison was Chairman of Harrison & Sons, the printing firm that published *OR* throughout its lifetime. He was knighted in 1951 (see http://discovery.nationalarchives.gov.uk/details/rd/a0a4a3d9-f66b-4b3f-b095-0f2283492dea, accessed on 4 August 2016).

'his' without further comment or qualification. There were only a handful of places in *OR* where women received mention, mostly in loving support of their oologist husbands, and even fewer female contributions to the journal, including only a single article published near the end of *OR*'s lifetime. As with the BOA membership, many contributors were drawn from the professional classes, including: the Reverends F.C.R. Jourdain, R. Godfrey and J.R. Hale; medical doctors such as H.M.S. Blair and W. Serle; and a few university professors such as T.D. Burleigh. Particularly notable was the number of active or, more usually, retired servicemen who contributed: for example, Majors W.M. Congreve and G. Pye-Smith; Captains P.W. Munn and V. Hewitt; and Lieutenant Colonel R.F. Meiklejohn. While many of these individuals were members of the BOA, not all were by any means, which suggests a wider constituency of active oologists than represented in the Association. However, *OR*'s editors made occasional exhortations for readers to join the BOA (e.g. *OR* 1933b), which implies that both journal and association were parts of a concerted attempt to create a British oological 'establishment'.

Various types of material were contained within the pages of *OR*. There were reports of the bird life and eggs in specific regions of the world, such as Palestine, Andalucia or the Scottish Highlands. Other articles concentrated on a particular species such as the great skua in Shetland or, further afield, the Australian superb lyrebird and the Ugandan lemon-rumped tinker bird. The parasitic habits of the cuckoo garnered early attention, and birds of prey were perennially popular, reflecting the charisma of these species in the human imagination.[171] The eggs of rare species held a particular allure for many collectors, as did unusual varieties of the eggs of more common species, such as erythristic eggs of the rook. Occasionally the focus was on recent sales of important egg collections, or individual eggs if particularly notable (especially those of the great auk discussed in Chapter 5). There were articles on practical aspects of collecting, such as the correct use of climbing irons to scale difficult trees; the best way to record data about eggs in one's collection; and different types of cabinet for storing and displaying eggs. There were also the kinds of regular features found in most journals: book reviews, letters to the editor and obituaries of prominent figures. Advertisements were confined to the inside covers, and included one for the Harrison & Sons 'O. E. & M. Standard Data' cards (discussed in Chapter 5), which stayed in place for the duration of the journal's history.

[171] For a discussion of different types of charisma that animals may possess, see J. Lorimer (2007).

The world and motivations of oology

On a detailed reading of the entire run of *OR*, various themes are notable, including the wide geographical range of contributors, true to the journal's tagline claim to be 'A Quarterly Magazine devoted to the advancement of Oology in all parts of the World.' (*OR* 1921: title page: see Figure 6.3).[172] Although most entries came from British authors writing about domestic or European oology, there were articles about eggs from every continent, including Antarctica in one instance, and almost every possible type of terrain and climate. There were also contributions from the inhabitants of other countries reporting on their own domestic birdlife or foreign trips, such as L.R. Wolfe of the US Army, A.W. Hellebrekers of the Netherlands, and W. Makatsch and U. Houmann of Germany. Outside Europe, ex-colonies such as the USA, Canada and Australia, as well as outposts of Empire, provided the lion's share of material. In particular, Africa was represented almost exclusively by reports from South Africa, Uganda, Rhodesia and other British colonies. Captain C.R.S. Pitman (born in India but later based in Uganda) was especially prolific and, unusually for *OR*, a professional game warden rather than an amateur enthusiast (*The Times* 1975: 14). Another frequent contributor, the Australian lawyer Sir C.F. Belcher, reported his oological excursions conducted from his colonial postings in East Africa and later the Caribbean (he became Chief Justice of Trinidad and Tobago) before retiring back to Africa (A.H.C. 1970). Military postings also gave other oologists the opportunity to collect in many different outposts, and thus the structures of Empire facilitated much of the *OR*'s wide geographical range.[173]

The importance of geographical knowledge to oologists was emphasised in 'Sidelights on Oology', an article by 'Nemo' (1930: 33), who stated that 'the modern oologist who wishes to keep abreast of his subject must have an intimate knowledge of many other sciences'. Nemo considered the physical-geographical characteristics of a region to be of particular help to the oologist, especially if travelling 'outside his own immediate district or country' (*ibid.*). Knowledge of places and place names was also important in ensuring that data recorded about the location of collected eggs was sufficiently precise, pinpointing the locality rather than just a large region, since in places like Siberia, where the provinces were 'enormous in their extent, ... to give merely the province from which eggs came was

[172] Although called a 'magazine' here, it was more commonly referred to as a 'journal' by its contributors, with the latter word arguably having a more serious, scientific cachet.
[173] For a discussion of earlier connections between ornithology and British military imperialism, see Greer (2009; 2013).

so very inadequate' (*ibid.*).

As well as reporting from all corners of the world, *OR* also provided insights into how the world was filtered through the eyes of the oological community. There arises the distinct impression that, for the keenest oologists, the world revolved around oology rather than the other way round. When the outside world impinged in the form of political unrest, war or natural disasters, it was the effect on oology, and sometimes the opportunities arising, that were noted as important. In the first issue of the *OR*, J. Bishop (1921: 8) provided some 'Bird Notes from the Western Front', recorded during and after the First World War, stating somewhat apologetically that, '[b]eing but one of the rank and file … my range was somewhat limited, but whenever the slightest opportunity presented itself I was with my beloved birds and thus brightened many an otherwise grey period'.[174,175] Congreve (1954) recalled almost being arrested as a spy, when a colleague saw him collecting eggs next to the camp where he was stationed near Amiens in 1918.

War could also bring unexpected benefits in the form of new equipment or chemicals of use to the collector. For example, the editor noted that '[w]e are hoping that the discovery of various new germicides during the recent war will be a help to those of us who suffer from the curse of mildew on their egg-shells' (*OR* 1946c: 11). The world at large could also press in on oology in other ways, such as Belcher moving in 1954 to South Africa after the Mau Mau uprising in 'Kenya[,] where so much has still to be learned about the breeding birds' (*OR* 1954: 16). Natural disasters were also mentioned where they had a possible oological impact: despite twelve lives lost and $10 million worth of property damage following an earthquake in Santa Barbara in 1925, fortunately 'there was not a single egg displaced in either of the museums' (*OR* 1925: 66).

Enthusiasm and derring-do

As well as filtering world events through the lens of oology, *OR* material carried different aspects of the practices already covered in earlier chapters, but worth revisiting here. Entries in *OR* about aspects of sound oological procedure, both out in the field and in the

[174] Bishop's reference to being 'one of the rank and file' places him in contrast with the numerous commissioned army officers who contributed to *OR* (see Chapter 6).
[175] Similarly, prisoners of war in the Second World War made painstaking observations of bird migrations: see Cocker (2008: 178-81).

'laboratory' of the collector's home, were plentiful.[176] Even more importantly, *OR* provided a literary space where oologists could report on their field activities, celebrating the more physical and adventurous side of egg-collecting. In such articles it is often the collectors' sheer enthusiasm that shines brightest, albeit sometimes dampened by British understatement. Oologists were not alone in their enthusiasm for the more physical aspects of their chosen pursuit, but for a putatively scientific journal *OR* was remarkably open to the expression of enthusiasm.[177] In tone and temperament articles often read like adventure stories, giving gleeful descriptions of trips spent in pursuit of eggs. Endurance of hazards and hardships could have its competitive side, as in 1932 when Nethersole-Thompson (1932: 8) wrote that 'I am often amused by the comments of certain oologists who seem to imagine that work abroad calls for immense field-craft, fitness and endurance.' He went on to contrast the guides used by travellers abroad with the self-sufficiency of the domestic collector, who would also often sleep outside rather than in hotels. This article prompted an indignant reply by the more widely travelled Congreve (1932; 43), who challenged his opponent to '[t]ry sleeping in the open on a mosquito-infested plain soothed by the myriad voices of a million frogs in a nearby swamp', or even in desert sandstorms or Arctic blizzards.

In terms of column inches, the difficulties encountered on foreign trips definitely won out over domestic travel. There were frequent complaints about atrocious travelling conditions such as roads in Romania that were 'a disgrace to any European country – even the Balkans' (Congreve 1939: 2).[178] Characterisations of 'natives' as unhelpful or feckless provided a common trope, allowing writers to indulge in cultural stereotyping, as with remarks about 'apathetic' locals in Palestine (Pitman 1922: 53), greedy, 'cunning' and 'impassive' Chinese boys (Cochrane 1946: 45, 48), and 'procrastinating' and greedy Syrians (Cochrane 1963: 55). McNeile (quoted in *OR* 1948: 59) complained after a visit to Cyprus that 'I don't want to make excuses for failure, but one *was* handicapped both by being alone, and by getting absolutely no help from the locals (there were plenty of goatherds, but they only spoke Cypriot and were quite unable to grasp what I wanted)'.

Unfriendly wildlife was a different sort of annoyance and potential danger. In Guyana, Belcher (1935: 57) found 'unpleasantly vivacious wasps' in many nests, and '[i]n one was

[176] See citations in earlier chapters for examples.
[177] As an example of enthusiasm for a different subject, Richards (2011) notes that many glaciology students are also climbers and hikers. The enthusiasm imbuing many *OR* articles can be contrasted with the generally drier tone of articles in *The Ibis*, a more general ornithology journal (see below).
[178] Congreve was accompanied by Steward on this trip.

a 6-inch centipede, fortunately coiled in rather a bad lie for effective functioning'. The American Colonel Wolfe (1959) made his crew land on Rattlesnake Island off the Gulf coast of Texas, quickly finding out why it was so named.[179] Birds themselves were usually less dangerous but could perhaps be more annoying, as Congreve (1946b: 56-57) found when searching for the red-breasted flycatcher in Romania: 'how bored I became with the ceaseless jingle-song of our little bird ... The interminable songs of various Flycatchers became almost maddening.' Whether at home or abroad, there was a certain self-congratulatory tone about the discomforts endured when egg-collecting, as when Jourdain declared that 'indifference to hardship and discomfort is probably more prominent in the oologist than in the worker in any other branch of zoology' (Jourdain 1931: 5). These types of report from out in the field, even if sometimes competitive, arguably helped to bolster collective identity through sharing experiences through the medium of print. Other oologists could enjoy the vicarious thrills provided by reading these tales of difficulty and derring-do, sometimes perhaps with a sympathetic shiver of recognition.

Oology as science in OR

Providing a means for oologists to report on the trials and tribulations of nesting trips, the *OR* gave vivid expression to their enthusiasm. This emotional register was mainly an *internal* function, *by* oologists *for* the information and entertainment of fellow oologists. Another key facet of *OR*, promoting the scientific side of oology, had functions that were both internal and external to oology. Internal to oology, its practitioners could disseminate research to each other and, ostensibly at least, further the limits of oological knowledge. External to oology, the more scientific-style articles presented evidence to other ornithologists, and to a potentially sceptical public, that oology was a valid science.

Throughout the first two decades of *OR*'s publication, articles of an oological nature also continued to appear in *The Ibis*, which was the house journal of the BOU (e.g. Congreve and Freme 1930; Jourdain and Shuel 1935).[180] Indeed, Congreve wrote that '[h]is [own] efforts at scientific contributions in the realms of ornithology have been confined to "The Ibis", and his articles in THE OOLOGISTS' RECORD have been merely efforts to help beginners at the game' (*OR* 1933a: 23).[181] This suggests that oology was still seen as

[179] Wolfe killed two of the snakes and cut off their rattles as trophies.
[180] *Ibis* (without the definite article) is still published today.
[181] When he became editor he did, however, emphasise the need for *OR* to 'have real scientific value' (*OR* 1946a: 4).

providing worthwhile contributions to ornithology as a whole at that time. These articles in *The Ibis* dwindled in number, however, as oology became increasingly ostracised by the BOU. The contents of *The Ibis* will not be considered further here, and it is the collective space provided by *OR* that is of central interest.

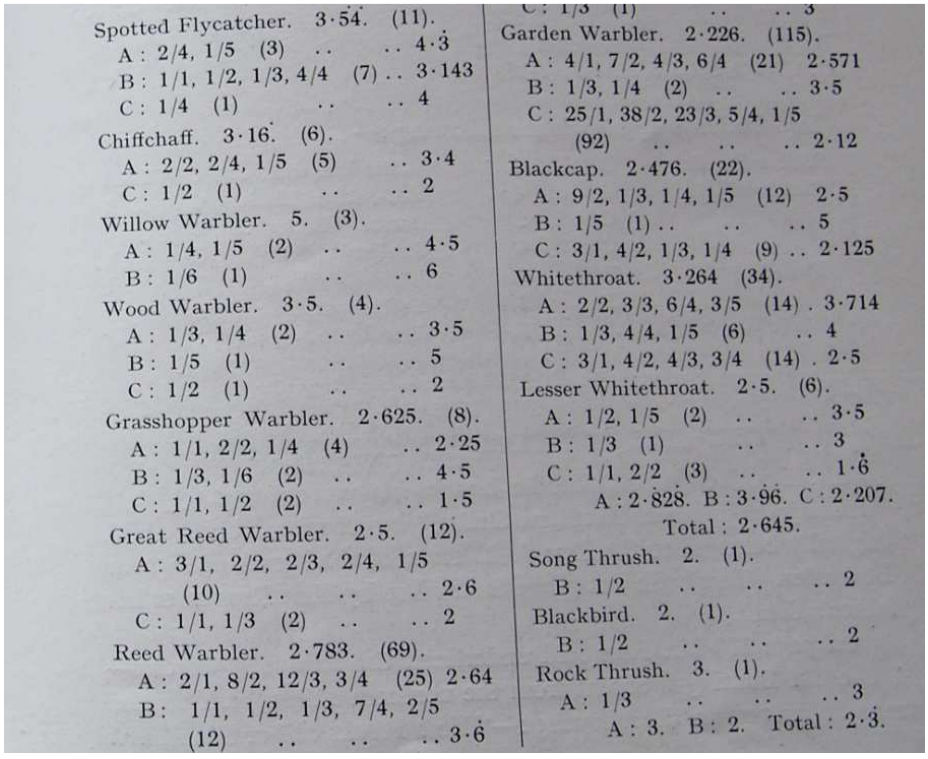
Oology as a scientific pursuit was generally the stated 'house line' of *OR*, but the 'scientific' aspects of the journal took a number of different forms. There were many articles that listed the eggs of different species, often those inhabiting a particular region or more specific location. To emphasise the scientific status of oology, almost every bird mentioned anywhere in the journal included the Latin taxonomic description as well as the common name. A typical article might describe the findings on a particular collecting trip, whether or not mixed in with anecdotes about the trip of the type discussed above. Often there would be an initial description of the terrain and climate of the region, and then, for each species found, the writer might describe the location and characteristics of the nest and the behaviour of birds around the nest (if they were present at the time).[182] The main focus of interest was usually the set of eggs contained there, and details of these eggs would normally be given, such as number in each clutch, size, colour and texture. Sometimes the stage of incubation was also mentioned. This item of information was significant from both a scientific and a practical perspective: scientifically, because it helped to estimate when the eggs had been laid; and practically, because it was often difficult to 'blow' heavily incubated eggs, as discussed in Chapter 5.

Many articles attempted to provide as much 'objective' information about eggs as possible, in line with epistemic and moral imperatives of the era to capture information about nature in a purportedly neutral fashion. The 'mechanical objectivity' (Daston and Galison 1992: 82) provided by photography epitomised this approach, but photographs of egg specimens were rare in *OR*, probably owing to the cost of reproduction at a high enough quality to make it worthwhile. Instead, some contributors such as Pitman gave long lists of measurements of the dimensions of eggs, which provide an example of eggs being abstracted from unique physical entities into readily comparable inscriptions (see Chapter 5). Other collectors also made efforts to capture the shape, texture and colour through verbose descriptions, such as Serle (1938: 14) describing the eggs of the Moustache Warbler in Nigeria:

[182] The specific study of nests is known as 'nidology'.

> The eggs are exceedingly handsome. They are smooth-shelled, glossy, and ovate in shape. The ground varies from warm, rich red-brown to puce, and they are obscurely but thickly freckled and clouded with various shades of lilac and brown. The markings generally form a ring about the big end. The eggs vary considerably within the set. Average of six eggs 22.5 × 15.7: max. *24.1 × 16.2*; min *20.5 × 15.3* mm.[183]

Other types of ostensibly 'scientific' articles also appeared in *OR*. For example, Loyd, whose donations of guillemot eggs to GM were noted in Chapter 5, had an article published 'On the number of eggs of the foster-parent left by the Cuckoo' (Loyd 1927). The bulk of his paper is consumed in a barrage of statistics (see Figure 6.4), bewildering at first glance, along with some summary statistics and brief discussion. What is striking about Loyd's article is that there was very little in the way of analysis to accompany the results. He admitted the limitations of this approach, stating that '[i]t is fully realised that by themselves the figures given can be of no great use, but they at least might form an excuse for opening a discussion on new lines' (*ibid.*: 62). What these new lines might entail was not indicated, except for a suggestion that his observations could be augmented by a search for unusual cases, such as when a cuckoo left no eggs of the foster parent.



Spotted Flycatcher. 3·54. (11).
A : 2/4, 1/5 (3) .. .. 4·3
B : 1/1, 1/2, 1/3, 4/4 (7) .. 3·143
C : 1/4 (1) 4

Chiffchaff. 3·16. (6).
A : 2/2, 2/4, 1/5 (5) .. 3·4
C : 1/2 (1) 2

Willow Warbler. 5. (3).
A : 1/4, 1/5 (2) .. .. 4·5
B : 1/6 (1) 6

Wood Warbler. 3·5. (4).
A : 1/3, 1/4 (2) .. .. 3·5
B : 1/5 (1) 5
C : 1/2 (1) 2

Grasshopper Warbler. 2·625. (8).
A : 1/1, 2/2, 1/4 (4) .. 2·25
B : 1/3, 1/6 (2) .. .. 4·5
C : 1/1, 1/2 (2) .. .. 1·5

Great Reed Warbler. 2·5. (12).
A : 3/1, 2/2, 2/3, 2/4, 1/5 (10) .. .. .. 2·6
C : 1/1, 1/3 (2) 2

Reed Warbler. 2·783. (69).
A : 2/1, 8/2, 12/3, 3/4 (25) 2·64
B : 1/1, 1/2, 1/3, 7/4, 2/5 (12) .. .. .. 3·6

C : 1/3 (1) 3

Garden Warbler. 2·226. (115).
A : 4/1, 7/2, 4/3, 6/4 (21) 2·571
B : 1/3, 1/4 (2) .. .. 3·5
C : 25/1, 38/2, 23/3, 5/4, 1/5 (92) .. .. .. 2·12

Blackcap. 2·476. (22).
A : 9/2, 1/3, 1/4, 1/5 (12) 2·5
B : 1/5 (1) 5
C : 3/1, 4/2, 1/3, 1/4 (9) .. 2·125

Whitethroat. 3·264 (34).
A : 2/2, 3/3, 6/4, 3/5 (14) . 3·714
B : 1/3, 4/4, 1/5 (6) .. 4
C : 3/1, 4/2, 4/3, 3/4 (14) . 2·5

Lesser Whitethroat. 2·5. (6).
A : 1/2, 1/5 (2) .. .. 3·5
B : 1/3 (1) 3
C : 1/1, 2/2 (3) .. .. 1·6
A : 2·828. B : 3·96. C : 2·207.
Total : 2·645.

Song Thrush. 2. (1).
B : 1/2 2

Blackbird. 2. (1).
B : 1/2 2

Rock Thrush. 3. (1).
A : 1/3 3
A : 3. B : 2. Total : 2·3.

Figure 6.4 Lists of clutches containing cuckoo eggs (Loyd 1927: 65). A, B and C show clutches from different types of source information (catalogues, and British and Continental clutches respectively). (Material sourced from Scottish Ornithologists' Club)

[183] Some *OR* authors used metric measurements for dimensions, and others used inches, with some (such as Pitman) adopting millimetres after first using inches. Mackenzie's notebooks at GM, donated in 1954, contain a handwritten conversion sheet from inches to millimetres.

The lack of substantial analysis, as opposed to mere observation and accumulation of eggs and data, was a feature of oological study roundly criticised by leading ornithologist E.M. 'Max' Nicholson (1926: 256):

> There is hardly a science of its secondary importance which has had so much time and money expended on it, and so many hundreds and thousands of living creatures sacrificed to its demands, as oology; there is probably none at all which has so few results to show. We see that eggs laid in holes are usually white; that plovers and similar birds have a very constant clutch of four pear-shaped eggs; that there are certain well-defined types of eggs which have been enumerated as: smooth, dull, glossy, greasy, porcellaneous, chalky-filmed and granulated; that waders and game-birds usually lay eggs proportionately much larger than passerines, and cuckoos proportionately smaller, and so on. All this is elementary, the Gilbert White stage of research, but oologists have not yet progressed beyond it.[184] With the explanation of the factors which govern the colouration of eggs and their size they have made practically no headway, though the far more intricate development of the chick has long ago been exhaustively worked out by embryology.

Notable here is Nicholson's highlighting of the destructive nature of oology, referring to the 'living creatures sacrificed to its demands', killed by collecting and blowing eggs. Also significant is that Nicholson contrasted the lack of analytical progress made by oologists with the achievements of embryologists, a point which also implicitly emphasises that the latter were dealing with the complexities of the living contents of eggs, whereas the former were merely concerned with lifeless shells. There were occasional attempts in *OR* at providing more systematic analysis of eggs or egg-laying behaviour, rather than just descriptions or lists of data, examples being 'The criterion for the trinomial' (Stuart Baker 1923a) and 'The mathematical side of oology, as applied to the study of cuckoos' eggs' (Schonwetter 1932).[185] The emphasis for most contributors, though, remained on detailed observation rather than wide-ranging analysis.

There were also rare contributions to *OR* by notable biologists. The evolutionary biologist Julian Huxley wrote to the journal in 1928 requesting readers to send in data that could be used by biologists to assess systematically the impact of weather conditions on bird

[184] Gilbert White (1720-1793) was a natural historian who emphasised field observation rather than the systematic and classificatory analysis practised by followers of Linnaeus (Barber 1980).
[185] The trinomial system gained support from the 1890s onwards when ornithologists such as Seebohm and Hartert argued that classification should include race or subspecies as well as genus and species. Scientific use of the trinomial fell from favour when research by evolutionary biologists 'brought to an end the idea that subspecies could be defined with total precision' (Bircham 2007: 254; see also Kohler 2006).
Schonwetter (*ibid.*: 86) signed off: 'But now it is 11 p.m., and at 4 in the morning I must rise and leave for my work in the Thuringian Hills. Sleep well and do not dream of my calculations that may perhaps shock some of the "field-men"!'

fertility and egg weights (*OR* 1928a).[186] The following year he asked for clutches of blackbird and song thrush eggs to be donated for analysis following the harsh winter of 1929. As an incentive, he declared that, '[i]f oology can supply the evidence needed, its prestige as a science must benefit considerably' (letter reproduced in *OR* 1929: 44).[187] These requests can be read as an attempt by Huxley to enlist oologists in the 'new ornithology' of which he was a father figure, based on the collective effort of local observers providing information to centralised institutions (see Toogood 2011). Later, in 1946, another leading evolutionary biologist, David Lack, wrote an article on 'The eggs of the red-backed shrike' (Lack 1946), but most contributions to *OR* were by dedicated amateur oologists rather than professional scientists.

As well as serving as expressions of oology's dual role as self-styled science and as a conduit for more visceral forms of enthusiasm, another function performed by *OR* was to provide a literary space for contributors to defend oology against the growing lobby who wished to see it outlawed, those referred to as 'protectionists'. These contributions will be discussed in the following sections, where the historical trajectory of oology from popular pastime to wildlife crime is also considered in more depth.

The estrangement of oology from ornithology

Above, I have introduced the formal collective structures of British oology that were created in the early twentieth century, and the different spaces in and by which they were constituted: the organisation, the meeting-place and the spaces of print. At first glance, the creation and existence of these spaces suggests that they represent the heyday of oology and its burgeoning popularity. However, while it was the case that oology needed to be popular enough for these institutions to exist in the first place, I shall argue below that, rather than being a measure of the strength and popularity of oology, they were in fact signs of its growing weakness, and harbingers of its eventual death as a mainstream pursuit. To this end, I have already drawn attention to occasional statements and decisions which smack of a defensive posture, a sense already – early in the century – of opponents 'circling the wagons' around egg-collecting. Previously having detailed the different

[186] Huxley was a key figure in helping 'the study of bird behaviour … achieve scientific respectability' (Moss 2004: 99) after the Second World War, following a a period (1890-1940) when ornithology was virtually ignored by most professional scientists, and seen as the province of amateurs.
[187] The success, or otherwise, of this request was not reported.

collective spaces of oology, I will now go on to outline more fully how the historical trajectory of oology, from pastime to crime, can be told through these spaces.

Until the early twentieth century, the collecting and study of eggs was generally regarded as an integral part of ornithology, which in its Victorian manifestation was based largely upon the collecting and analysis of bird skins as well as eggs (Bircham 2007). For example, the founder members of the BOU in 1858 included John Wolley and Alfred Newton, two of the most notable nineteenth-century oologists. In 1892 the British Ornithologists' Club (henceforth BOC) 'was founded for the purpose of facilitating the social intercourse of members of the' BOU (*BOC Bulletin* 1900: v), and its meetings (at Pagani's and other central London restaurants) had as a main focus the exhibition by members of specimens of bird skins and their eggs.[188] As early as 16 May 1900, a joint meeting of the BOC and Annual Dinner of the BOU unanimously passed a motion stating:

> That any member of the Union, directly or indirectly responsible for the destruction of nest, eggs, young, or parent-birds of any of the species mentioned below – Osprey, Kite, White-tailed Eagle, Honey-Buzzard, Common Buzzard, Hoopoe, Golden Oriole, Ruff, Bittern, and Chough – should be visited with the severest censure of the Union. (*ibid.*: cii)[189]

In 1908 the BOU passed a further motion threatening the expulsion of those responsible for taking eggs or birds from an expanded list of species. At a BOC meeting on 19 October 1910, Bunyard exhibited eggs of a number of rare species, including a clutch 'that had been sent to him as eggs of the Common Snipe (*Gallinago gallinago*), but he considered them to be undoubtedly those of the Ruff' (*BOC Bulletin* 1911: 17). This latter species was on the BOU's list of forbidden species, and Mr J.L. Bonhote made remarks criticising Bunyard before proposing a motion:

> That this meeting strongly disapproves of the collecting and exhibiting of large series of clutches of eggs of British breeding birds, or of British-taken eggs of our rare species, except for the purpose of demonstrating some new scientific fact. (*ibid.*: 19)

The following year, tentative moves towards the separation of the oological fraternity from other ornithologists were reported:

[188] Bircham (2007: 206), however, notes that at its inception in 1892, few mainstream ornithologists became members of the BOC, and mentions 'an unwritten sense of a possible rivalry with the BOU'.
[189] The 'indirectly' stipulation covered 'cabinet' collectors, such as Bunyard (see below), who did not originally take the specimens.

> … fourteen enthusiasts met under the Chairmanship of Lord Rothschild in a tiny room in London to discuss the advisability of forming an Oological section of the British Ornithologists' Union.
>
> Other members of the B.O.U. joined later, and for several years meetings continued to be held from time to time with a view to upholding the special interests of Oology within the Union. (*OR* 1933b: 70)

As mentioned above, these oological dinners were formalised in 1915, and continued under the auspices of the BOC until 1921, when at the ninth such gathering:[190]

> Mr. EDGAR CHANCE made a very remarkable exhibit of eggs of the Red-backed Shrike. These eggs were the full layings throughout a season of 40 birds. Of these 40 series only four had laid five sets each in the season, and of the remainder 18 laid four sets each, and 18 laid three sets each. (*BOC Bulletin* 1921: 143)

At the 1922 annual meeting of the Royal Society for the Protection of Birds (RSPB), Honorary Treasurer Lord Buxton mentioned Chance's exhibit as an example of excessive egg-collecting, asking BOU members how 'they could justify these depredations and the example they set to others by their action' (Parker 1935: 7):

> He had no quarrel with the moderate egg-collector, who was often really interested in birds and in nature, and who confined himself to taking one or two eggs, leaving the remainder of the clutch to hatch out. But he did quarrel with those professional collectors who, either for gain or in the name of Science, or for any other reason, ruthlessly and in a wholesale manner filched the entire clutch. He especially deprecated such action in the case of rare birds. Some of these collectors did not appear to care by what means they obtained the eggs, nor did they pay much heed to the law. (Report of the meeting, quoted in Parker 1935: 6)

Buxton also wrote to the BOU Secretary, Stuart Baker, requesting an explanation. Stuart Baker's reply, with BOA President H.J. Elwes, was published in *The Times* letters, pointing out 'that the Oological dinners are not held under the auspices of the British Ornithologists' Union, nor are those who attend necessarily members either of the B.O. Union or the B.O. Club' (Stuart Baker and Elwes 1922: 10).[191] Their disclaimer apart, the office-holders declared, on behalf of the BOU committee, a commitment to protect rare birds, and registered disapproval at anyone breaking laws for bird protection:

> That it is their ambition to limit the collecting of eggs to the taking of such as are required in the interests of science, and they specially protest against the taking of eggs of any birds in any locality where they are rare, or the taking of eggs in unnecessary numbers. (*ibid.*)

[190] However, a letter from Jourdain to Coltart (inserted into the bound bulletins consulted in this research) states of the sixth 'meeting': 'Strictly there was no such dinner!' (Jourdain private letter 1938).
[191] Chance, however, was at that time a member of the BOU, although not of the BOC.

Having been forced onto the defensive about the motivations of the oological fraternity, the committee of the BOU thus sought to put distance between its membership and the excessive actions of collectors like Chance.

The furore over the red-backed shrike affair precipitated the formation in 1922 of the BOA as an entity completely separate from the BOU and BOC, thus finally severing the link between the oologists and the ornithological establishment. Cole and Trobe (2000: ix) note that '[e]xhibiting eggs virtually ceased from that time onwards at B.O.C. meetings, except for a few die-hards such as Percy Bunyard, who pointedly ignored the wishes of the committee.'

An incident in the early 1930s was significant in further alienating oologists from the ornithological establishment. In a letter to *The Ibis*, Hugh Whistler wrote to lodge a complaint about 'the exhibition of a freshly taken clutch of British Kite's eggs at a recent meeting of the British Oological Association ...', noting:

> I am glad to have heard that some of the members present objected to the exhibition, and the fact that it was not recorded in the Bulletin is, presumably, due to a feeling that it does not confer any credit on the Association. I feel, however, and those with whom I have discussed it likewise feel, that some stronger action is required in the interests of the good name of the Association. It is, after all, rather a slur on the Association that one of its members should imagine that an exhibit of this nature would be welcome. (Whistler 1932: 214)

Red kites were a species of particular concern, with few breeding pairs left in the UK, so the taking of their eggs was bound to raise eyebrows among ornithologists. That the exhibition of kite eggs was not recorded in the meeting's written record later appearing in the *BOA Bulletin*, indicates awareness that wider knowledge of the eggs' existence could cause outcry. This omission also raises questions about other exhibited 'contraband' that might have been left off the minuted record, especially clutches laid by endangered species. On the other hand, the fact that the exhibition of kite eggs was leaked by someone to Whistler, and he thought it worth a letter to *The Ibis*, may instead imply that such 'off the record' incidents were rare. Although the exhibition of the kite eggs was itself not recorded, at the January 1932 meeting of the Association, Nethersole-Thompson (only recently a BOA member) was officially censured for having taken the eggs, and apologised

(*BOA Bulletin* 1933: 96).[192]

At a subsequent BOU meeting, Mrs M.L. Lemon proposed a motion urging further action by the Union to protect the kite and other rare birds, urging that 'as egg and specimen collecting had assumed alarming proportions, and threatened the extinction of certain birds, it was necessary to create public feeling hostile to such action' (*The Ibis* 1932: 400).[193] It was also agreed at the meeting that there should be no further correspondence in *The Ibis* on the matter. Having been deprived of their right of reply in that journal, a collective letter to the editor of the *The Ibis*, signed by eleven joint BOA and BOU members, was published in the *BOA Bulletin* instead. The letter did not deny that the exhibition had taken place, but pointed out that Whistler did not attend (and was not a BOA member), and that:

> … no mention is made of the Censure by the Chairman on the occasion in question. In a case *sub judice* common courtesy and regard for justice would deter most people from rushing into print with an ill-informed attack on an independent body. (*BOA Bulletin* 1933: 99-100)

The authors did not explain further what else, if anything, was so 'ill-informed' about Whistler's allegations.

The fallout from the exhibiting of kite eggs had direct impacts on BOA personnel. At the same meeting as the letter was discussed, on 11 March 1932, Lord Rothschild resigned as President and Stuart Baker as Vice-President, to be replaced by Francis Jourdain as President, and Rev. J.R. Hale and Mr G.H. Lings as joint Vice-Presidents (*BOA Bulletin* 1933). Rothschild had a prominent public profile in ornithological circles, and his departure arguably reinforced the increasing isolation of oology from the mainstream ornithological establishment. Perhaps more significantly these incidents also contributed to increasing disquiet about oology among ornithologists and the public more widely, prompting more searching questions about the impacts of oologists on specific bird populations, and the ethical probity of egg-collecting as a practice more generally. Counterfactually, it may be asked, if these controversial exhibits had not been shown,

[192] In a discussion of the controversy over the kite eggs, 'Autolycus' (1933: 41-42) claimed that the nest was 'robbed in 1930 in protest against the methods of coercion and intimidation of those who sought to turn the Valley of the Kites into a Valley of Humiliation for the oologist'. Cole and Trobe (2000: 91) record that Nethersole-Thompson worked out the location from Walpole-Bond's *Bird life in Wild Wales* (1904).
[193] The record of a Mrs Lemon speaking at a BOU meeting indicates that unlike at the BOA, the BOU's rules did not bar women from attending. Margaretta Louisa Lemon ran the RSPB (as Mrs Frank E. Lemon) from the 1890s until the 1930s (Samstag 1988: 24).

whether the opponents of oology might have had less ammunition for their cause or whether they would have found other incidents to criticise.

Ethical debates through *OR* and other publications

Throughout the 1920s and 1930s, debates over egg-collecting were fiercely fought, and it seemed almost obligatory for any commentator on ornithological matters to take a stance on the matter:

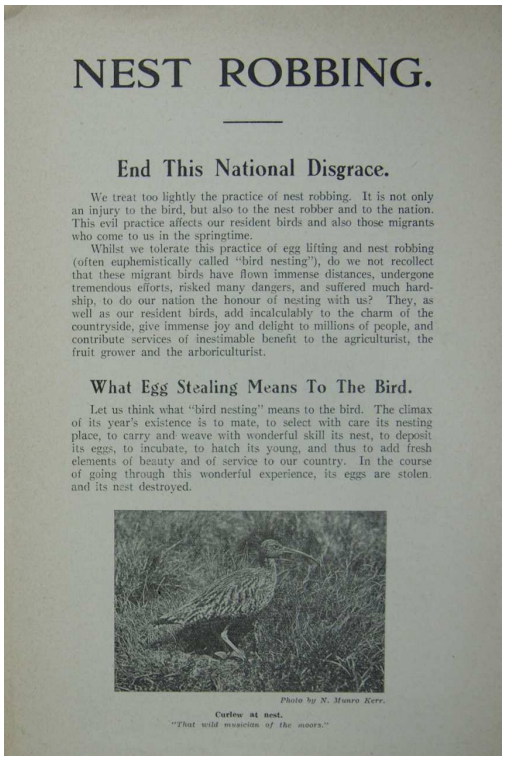
> It is a generation at least since any political question was generally discussed in Britain with the heat that a controversy on egg-collecting almost invariably generates to this day among people who take any interest in birds. (Nicholson 1926: 242)

These debates about the rights and wrongs of egg-collecting are particularly significant because they are at the heart of what makes egg collections a difficult kind of material culture. In the mid to late nineteenth century, egg-collecting was widely accepted as part of the wider Victorian predilection for forming collections of natural and other objects, although there were already a few dissenting voices, as evidenced by debates in *Boys' Own Paper* and other children's periodicals (Milton 2008).[194] Today, egg-collecting is almost universally reviled, and it would be more remarkable to support the practice than it would have been to oppose it 150 years ago. During the 1920s and 1930s, however, the status of oology was under intense debate and scrutiny, with many people still practising and supporting egg-collecting, but increasingly challenged by a growing number of opponents. As such, this transitional period merits particular attention when considering the difficult status of egg collections.

There are a number of principal sources for tracing the arguments for and against egg-collecting. On the side of the oologists, contributors to *OR* frequently wrote in the journal to defend their chosen pastime and to criticise those who sought to have egg-collecting banned. Also in their defence was a short book entitled *The Protection of Birds: An Indictment* by Loyd (1924b), the collector represented at GM by numerous guillemot eggs (see Chapter 5). Lined up against the oologists were various self-styled 'protectionist'

[194] Milton also recounts that egg-collecting was mentioned disparagingly in John Newbery's *A Pretty Little Pocket-Book* (accredited as the first ever specifically for children): 'Here two naughty boys, Hard-hearted in Jest, Deprive a poor Bird, Of her young and her Nest' (Newbery 1760, quoted in Milton 2008:114).

groups, most prominently the RSPB and a sister organisation called the Association of Bird Watchers and Wardens (*OR* 1936c; *OR* 1937; Sheail 1976), which was either identical to, or closely associated with, the evocatively-named 'Black Cabin gang' (*OR* 1936a: 43; see also 1937b; 1939b). Other protectionist groups included the Scottish Society for the Protection of Wild Birds (henceforth SSPWB) (n.d.: see Figure 6.5), British Empire Naturalists' Association (*OR* 1936c) and Our Dumb Friends League (*OR* 1938b). Pamphlets and journals (e.g. the RSPB's quarterly *Bird Notes & News*) produced by some of these bird protection societies allowed the protectionists to outline their arguments. Also opposing egg-collecting in print were well-known ornithological writers such as W.H. Hudson (Gardiner 1923), E.M. 'Max' Nicholson (1926) and T.A. Coward (1927). The letters pages of national newspapers, especially *The Times*, provided further conduits for debate, as did *The Field*, the house journal of the British field sports establishment. Many of the arguments put forward in correspondence printed in *The Field* were summarised and discussed by its editor, Eric Parker, in his 1935 book *Ethics of Egg-Collecting*.[195] Taken together, these written sources provided a theatre for ethical debate: a space or series of spaces in print, in which oologists and other interest groups argued over different points of principle and practice.



NEST ROBBING.

End This National Disgrace.

We treat too lightly the practice of nest robbing. It is not only an injury to the bird, but also to the nest robber and to the nation. This evil practice affects our resident birds and also those migrants who come to us in the springtime.

Whilst we tolerate this practice of egg lifting and nest robbing (often euphemistically called "bird nesting"), do we not recollect that these migrant birds have flown immense distances, undergone tremendous efforts, risked many dangers, and suffered much hardship, to do our nation the honour of nesting with us? They, as well as our resident birds, add incalculably to the charm of the countryside, give immense joy and delight to millions of people, and contribute services of inestimable benefit to the agriculturist, the fruit grower and the arboriculturist.

What Egg Stealing Means To The Bird.

Let us think what "bird nesting" means to the bird. The climax of its year's existence is to mate, to select with care its nesting place, to carry and weave with wonderful skill its nest, to deposit its eggs, to incubate, to hatch its young, and thus to add fresh elements of beauty and of service to our country. In the course of going through this wonderful experience, its eggs are stolen and its nest destroyed.

Photo by N. Munro Kerr.

Curlew at nest.
"That wild musician of the moors."

Figure 6.5 Pamphlet produced by the SSPWB (n.d.).
(© CSG CIC Glasgow Museums Collection)

[195] Parker was firmly in favour of protectionism and received vehement criticism from oologists (e.g. B.O.U. 1934; *OR* 1935).

Points of ethical disagreement

The default position of many oologists was based on a view of the natural world as a largely inexhaustible cornucopia for 'mankind' (*sic.*) to use and enjoy as it pleased. This attitude was expressed by the editor of *The Condor*, a western American ornithological journal:

> It is the mission of lower animal life to minister to the gratification of the higher. This law of nature is annunciated in the Great Book, and has ever been the basis of man's dealings with the inferior creatures. It is my creed that if a set of eggs can minister to the pleasure of any number of observers, there is no question of the collector's right; furthermore, if seven sets of any one species can serve a purpose in bringing other sets, difficult of access, into one's cabinet by way of legitimate exchange, again the collector's right is beyond moral question. (Silloway 1903: 54)

In a similar vein, Bunyard wrote that 'I have always looked upon collecting as man's hereditary right' (quoted in Parker 1935: 71). Most supporters of egg-collecting, however, recognised the need to defend the practice with persuasive arguments rather than simply asserting their God-given right to collect.

One point of difference was whether it was worse to take eggs or to shoot birds. The oologists claimed appeal to biblical authority on this point in the form of:

> Mosaic law on the subject as laid down in Deuteronomy XXII, 6, 7: "If a bird's nest chance to be before thee in the way in any tree, or on the ground, whether they be young ones, or eggs, and the dam [mother] sitting on the young, or upon the eggs, thou shalt not take the dam with the young: but though shalt in any wise let the dam go, and take the young to thee; that it may be well with thee, and that thou mayest prolong thy days." (*OR* 1923b: 62)

Protectionists did not agree with this injunction, advancing a wide variety of different arguments about why it was unacceptable to take (or more emotively, 'rob') eggs from nests. Sometimes their focus was on the suffering caused to the parent bird in having its eggs stolen, as in this extract from a pamphlet produced by the SSPWB (n.d.):

> Its long migration, its mating and nest building, have all been leading up to this great climax which has been frustrated. The pain and suffering involved to this sensitive creature must be intense. It is all the more intense that the cruelty is not physical, but psychical. The whole scheme of this beautiful creature's life is meantime, for it, destroyed.

The same act of cruelty to the bird could also have deleterious psychological effects upon

the collector, who:

> … in thus inflicting pain, further develops in himself a hardness of heart and an unresponsiveness of feeling which automatically shuts him out from purer and finer pleasures. He has also destroyed a thing of beauty which he cannot replace. Thoughtlessness concerning the suffering of living creatures is a step towards degradation, and sows the seed of brutality in the nature. (*ibid.*)

Coward (1927: 199) went further, claiming that '[e]gg-collecting by small boys may seem trivial enough, but it may be the first step towards the deepest degradation, the creation of the potential or actual murderer'.

Most opponents of egg-collecting used less apocalyptic arguments, based on the impact on bird populations, rather than the psychological damage done to birds or collectors. It was widely asserted by oologists, and accepted by at least some protectionists, that most species of bird would lay another clutch of similar size if their first attempt was lost to collectors or other factors, and sometimes further clutches if the second laying was also lost.[196] Oologists argued that their activities therefore did not negatively affect bird populations, or even that they helped to increase the number of birds successfully reared since, if birds were forced to re-lay, the eggs were hatched later, in milder weather when more food was likely to be around to feed the chicks. Protectionists conutered that later-hatching chicks might in fact be disadvantaged in competition with earlier broods who had already gained strength, and:

> Surely it is a gross piece of impertinence for the egg-collector to pretend to have a better knowledge of what is best for the maintenance and increase of a species than have the ruling powers that evolved them. (R.H. Metge, quoted in Parker 1935: 92).

In addition, if one collector took a first (or later) clutch, he could not be sure that another collector would not then come and take the next clutch, and possibly even later clutches until the birds simply gave up laying (*ibid.*: 91). A.H. Hall (Parker 1935) used a mathematical argument to show that, with a given natural failure rate of clutches (he used 50%) and a maximum number of possible layings in a season (say, three), collecting would necessarily tend to diminish the number of chicks reared successfully.

Some protectionists did not have such a problem with moderate collecting, but focused

[196] The advantages of taking a whole clutches, rather than individual eggs, were discussed briefly under 'Taking and transporting eggs' in Chapter 4.

instead on excessive greed or the taking of rare species.[197] Nicholson (1926: viii) was left aghast at the large collection of Sir Vauncey Harper-Crewe, sold at auction in 1925:[198]

> The impression, even looking at the exhibition from the standpoint of a collector, was of an appalling and criminal waste. Here, dumped down anyhow in a series of dirty old cigar and cardboard boot-boxes, were enough eggs and enough dusty mounted skins to populate a country with birds.

Of particular concern was the taking of the eggs of rare species, even if only a few clutches. Nicholson (*ibid.*: 247, 251), while not blaming collectors for making species rare in the first place, argued that:

> Once any species, for some reason or other, falls into a perilous state, down come the collectors together, like vultures on a sick antelope, and finish the work ... [O]nce this stage is reached the collector becomes the principal assassin.

Furthermore, he argued, the rarer the species, the greater the collectors' interest in its eggs. Other commentators emphasised the danger of collecting with financial motivation, a disquiet perhaps partially driven by a traditionally British, or at least English, distrust of professional status (compared to its cultural opposite, the amateur), as well as by the perceived dangers to bird populations. For H. Cox:

> Whatever the collector's motive he is a despoiler; but where he collects with the object of selling – even unwanted eggs – he is a very reprehensible person. (quoted in Parker 1935: 104)

The possibility of pecuniary gain was a factor in a significant incident that took place in 1926. As mentioned above, Chance had already gained a certain notoriety for exhibiting forty egg clutches of the red-backed shrike, the details of which were still being argued about a decade later (Parker 1935). In 1926 he was convicted:

> … at the Petty Sessions at East Harling in Norfolk of aiding and abetting Albert Wyatt, farm-bailiff, in taking the eggs of the Crossbill in contravention of the Wild Birds Protection Act of 1894. (*The Ibis* 1926a: 636)[199]

Wyatt was fined £6 19s and Chance £22 12s including costs, with the eggs to be divided between the museums at Norwich and Thetford (Parker 1935).[200] This case was significant

[197] However, 'if you attempt to define 'moderate' you are in difficulties at once ... The worst collector thinks he is 'moderate''(Hendy quoted in Parker 1935: 109).
[198] As mentioned earlier, Mackenzie bought eggs at this auction.
[199] See below and Appendix 1 for further brief discussion of the 1894 Act.
[200] Chance's fine was equivalent to approximately £1200 in today's prices.

for a number of reasons, not least because it prompted Chance's resignation from the BOU (*The Ibis* October 1926b). Because the case involved the use of Wyatt as a proxy collector, protectionists could criticise both Wyatt and Chance, the former for taking eggs for financial gain and the latter for wanting the eggs, yet being too cowardly or effete to take them himself. A further notable aspect of the case was the defence claim 'that the breach of the law was for a scientific purpose, and that some of the eggs were for the Reading Borough Museum' (letter from H.M. Wallis reproduced in *The Ibis* 1926a: 628), implying that it was more acceptable to take clutches of rare birds if they were for scientific study, a claim examined in greater detail below. The invocation of public rather than private enjoyment is also noteworthy.[201]

Oology and the law

The crossbills case involving Chance was notable as a very rare example of a successful prosecution under laws protecting birds' eggs in place since the Wild Birds Protection Act 1894 (see Appendix 1). Under these laws:

> … some counties prohibit altogether the taking of all eggs of wild birds, other counties prohibit such taking in certain districts and others again prohibit the taking of eggs of certain named wild birds. (Marchant and Watkins 1897: xi)

These laws were criticised for being confusingly complex and 'so worded that an astute lawyer can drive the proverbial coach and four (should it not be a Rolls-Royce to-day?) through many of the clauses ...' (Coward 1927: 193). Oologists ridiculed laws covering unrealistic scenarios such as 'the eggs of the Puffin, protected by law in Staffordshire, or those of the Osprey in London' (*OR* 1935b: 67), which made the county lists 'the laughing stock of every schoolboy who knows the difference between a Buzzard and a Bustard' (*OR* 1936a: 46).[202] They also criticised inconsistencies between the laws in different counties, so that 'the man who finds a Meadow-Pipit's nest with blue eggs and take it, may be a criminal if the nest was on the north side of a brook, but a law-abiding citizen if it was placed on the south side' (*OR* 1938b: 45).[203]

[201] From correspondence in *The Ibis* on the matter (1926b), it appears that Chance may have believed that the Museum wanted the eggs, although they did not actively ask him to obtain them. The incident this provides an early example of a link between museums and egg collections.
[202] Note that the laws prohibited the taking of eggs from these places, but not holding or selling them.
[203] These differences between county laws perhaps reflected regional cultures of human-animal relations, similar to those delineated by Matless *et al.* (2005).

Despite the obvious imperfections of the laws, protectionists argued that they should still be obeyed and upheld, since as Coward (1927: 194) asserted, '[i]f, even so far as it concerns a bird's egg, we ignore the ruling of the State we are anarchists'. Other commentators (e.g Hendy in Parker 1935) proposed strengthening the laws, perhaps even making it illegal to collect most eggs (except those of species deemed to be vermin). There were proposals in the 1920s for further legislation, criticised by oologists (e.g. Carter 1923; Loyd 1924b), though new laws did not reach the statute book. In 1933 Parliament outlawed the sale of some species of live birds (Bircham 2007), which emboldened protectionists such as Miss E.H. Borough to suggest:

> Now that the bird-loving public has ... demanded the abolition of the poor man's Mecca of cage birds – Club Row – and rightly, it is surely right to turn our attention to ... the well-to-do egg-collector and his agents. (quoted in Parker 1935: 26)[204]

As well as supporting banning the taking of rare eggs, some protectionists proposed making it illegal to sell or exchange eggs, while others thought it was more practicable to enforce existing laws more rigorously and to use other measures to deter collectors. They included 'enlisting a band of voluntary watchers' which could be especially useful when combined with '"black lists" of well-known offenders' (Parker 1935: 118), including photographs if possible. Hendy (quoted in Parker 1935: 109) also suggested that 'local ornithological societies could do much to organise public opinion against illegal collectors by refusing to admit them as members'. Major Anthony Buxton argued that 'publicity and ridicule are the best weapons to use against the egg-clutcher' (quoted in Parker 1935: 55).

Other suggestions were more flippant. Dr P. Gosse proposed that known collectors could be prevented from carrying out their activities by being:

> … rounded up and put into some institution until the nesting season is over ... During their annual detention these patients ... might be supplied with albums and packets of postage stamps in the hopes of getting them engrossed in this perfectly harmless form of collecting, and one which is of quite as much scientific value as egg-collecting. (quoted in Parker 1935: 102)

Other protectionists proposed various different approaches for preventing collecting, some equally irreverent and others more serious. Mr H.D. Manson-Bahr suggested forming 'a society for the extermination of the egg-collector' (quoted in Parker 1935: 105). Hendy welcomed this suggestion, adding that '[t]he society should soon be able to boast of a

[204] Club Row was the site of a live animal market in the East End of London. It finally closed down in 1983 (Simpson 2014). The identification of egg-collectors as 'well-to-do' indicates a perceived class bias.

"small, self-taken collection" of egg-robbers' scalps' (*ibid.*: 106).

Defences of oology

Oologists used various tactics to defend their practices. Their claims to be helping birds by taking their first clutches have already been discussed above and in Chapter 4, while another common defence was that the impact of collecting in general was limited compared with other factors. For example, Stuart Baker (1923b: 83) declared that:

> Even including the indiscriminate and ruthless collector, the wanton schoolboy and the rustic destroyer of all nests and eggs, the number of eggs taken or destroyed by man is infinitesimal when compared with those destroyed by Nature.[205]

Stuart Baker provided the example of a ternery destroyed by floods, as well as the severe winter of 1917-18 almost wiping out the Dartford warbler in Britain, and, with other commentators, he emphasised the voraciousness of predatory animals such as rats and stoats. A reviewer in *OR* of Coward's *Bird Haunts and Nature Memories* argued that Coward 'grudges and misjudges the interest of the oologist' proposing instead:

> We commend to them [the protectionists] a scheme for the licensing and control of domestic cats, which would do more to foster bird-life than all they have done or will do, while the greatest efforts of the most greedy collector in a lifetime will not exceed what a pair of Jays or Magpies will accomplish in one season. (*OR* 1922: 96)

Crows (another corvid species along with jays and magpies) and gulls were also accused of visiting much damage on other species' eggs. On the decline of the kite in Wales, 'Autolycus' (1933: 42) commented that 'the scientific oologist is reviled while the daring Crow, keenest and ablest collector of all, is allowed to do his deadly work unmolested'.[206]

Oologists also blamed human causes other than egg-collecting for the decline of some bird species. Housing developments were identified in *OR* (1937b: 93) as the reason for the disappearance of the Kentish plover, 'which was always scarce and local'. Even the anti-collecting Nicholson (1926: 25) acknowledged:

[205] Stuart Baker (*ibid.*: 84) allowed that '[t]he only instances when mankind can expedite the extinction or disappearance of a bird is when Nature has already brought the number so low that any additional factor may prove to be the last straw'.

[206] Autolycus was a son of Mercury and 'a snapper-up of unconsidered trifles' in Shakespeare's *The Winter's Tale*, iv, 3 (quoted Brewer n.d.: 76).

> The egg-collector, the bird-catcher and the protectionist are credited with powers of life and death over birds in England, while the devastation of the new towns, the increase of disturbing factors, and the far-reaching effects of modern civilisation, remain comparatively disregarded.[207]

While the encroachment of urban development on the habitats of rare species may have been seen as regrettable yet sometimes inevitable, the activities of specific groups of people caused exasperation to some oologists. Photographers came under attack for disturbing nests, including '[a] well-known lady photographer whose querulous outbursts against egg-collectors disfigure most of her articles on the subject ... I need hardly say that the nest had to be found for her, field ornithology not being the strong point of the photographer' ("M.B.O.U." 1932: 73). The 'lady photographer' allegedly interfered with a capercaillie nest to make it more photogenic, thereby causing the bird to abandon her eggs.

Particularly vexing to oologists were attacks from the field sports fraternity which they considered hypocritical in the extreme (e.g. 'B.O.U.' 1934) and perhaps especially hurtful, since many oologists considered their hobby to be a valid field sport in its own right (see Chapter 5). The unpunished killing of birds, especially raptors, by gamekeepers, using poison, trap or gun, was also considered highly unfair. It was alleged that this leniency was caused by rural magistrates' benches being 'largely composed of game preservers' (Jourdain 1937: 41), and the RSPB's financial dependence on hunting and gamekeeping interests (Jourdain 1933). Thus collectors were persecuted, while 'the lout with the gun or the keeper who slaughters his hecatomb of Hawks and Owls … [is] to be treated as sacrosanct' (*OR* 1939a: 37).[208] Or, more succinctly, '[w]hat is the good of protecting the eggs of the Marsh and Montagu's Harriers in the British Islands when they have all been shot?' (*OR* 1936a: 45). Oologists and their opponents not only argued about the impact of collecting on species still extant, but also produced their own autopsies on what caused the British extinction of the osprey around 1902. Oologists pinned the blame on over-zealous keepers in Scotland and Irish peasants shooting birds as they migrated, whereas protectionists such as Nicholson thought that egg and skin collectors were the crucial factor (discussion in Nicholson 1926).[209]

Another stratagem used by proponents of oology was to argue against the unintended

[207] Nicholson's statement reflects wider concerns and debates in the interwar period about the effects of modernisation, urbanisation and 'progress', as anatomised by Matless (1998).
[208] A hecatomb is a large sacrifice, originally of cattle or oxen in Ancient Greece.
[209] Debates about the relative historical impacts of these factors continue today (e.g. Hamilton 2009; McGowan 2009).

consequences of 'indiscriminate protection' (Loyd 1924b: 41). The reasoning was that protecting the eggs of some predatory species could lead to an excessive number of birds of that species, possibly damaging the populations of those species that formed their prey. Loyd employed this type of argument against protecting the herring gull on Lundy, whose eggs had been taken by the resident lighthouse keepers for sustenance. He claimed that protecting the birds and eggs of that species, as promoted by the RSPB, would make 'the Guillemots and Kittiwakes suffer in proportion until their local extinction' (Loyd 1924b: 7). More generally, oologists argued:

> Rigid protection of this kind usually ends in abnormal increase followed by withdrawal of protection altogether, revulsion of feeling against the bird a subsequent slaughter. (*OR* 1938c: 71)

It was even suggested that paying farmers to protect certain species on their land might arouse the jealousy of their neighbours, who would then be tempted to kill the birds or destroy eggs out of sheer spite (Autolycus 1933: 43). Oologists often claimed to be in favour of more limited bird protection. Loyd, for example, recounted an unsuccessful recent attempt in Somerset at wholesale protection of lapwing, which he claimed led to overcrowding and fouling of the land. In contrast, he wrote approvingly of the Dutch approach where thousands of eggs were harvested each year, yet the population did not decline:

> Why? Because they are protected – really and very rigorously protected – and because the laws for their protection were drawn up on sound, common-sense, scientific lines by people who knew something about the matter they had in hand, and who took the trouble to look a little further ahead than the ends of their own noses – not by haphazard sentimentalists. (Loyd 1924b: 57)[210]

Despite often claiming to be in favour of targeted protection, however, there is scant evidence of oologists providing written examples of which species they would seek to protect.

Oologists' arguments against 'indiscriminate protection' were one aspect of their wider self-portrayal as the 'genuine' protectionists of birds, or, indeed, the 'true' lovers of nature. Following a species-by-species rebuttal of RSPB accusations that oologists had 'seriously jeopardised the status of certain birds' (1933: 39), 'Autolycus' declared:

[210] Note Loyd's elision of 'scientific' with 'common-sense'. He would likely have been unaware of developments taking place at the time towards the formulation of quantum mechanics, which ruptured the links between the vanguard of science and 'common-sense'.

> The study of our wild birds in their native haunts is a noble study and a great adventure, fraught with considerable risk to health and limb, but the rewards for the true lover of nature are immeasurably sweet. Those who pursue this delightful study are vilified in every possible way by those who are supposed to have the interest of our wild life at heart, and yet have neither an elementary knowledge of our birds nor a knowledge of what should be done to protect them. It is sad to think that if some of these rare species survive to be a joy to another generation of naturalists it will be in spite of and not because of the clumsy efforts made by the "official" body of bird-protectionists. (*Ibid.*: 45-46)

Mention of oologists as the 'true lovers of nature' had parallels in the discussions of the correct motivations for egg-collecting, as discussed above. A thirst for knowledge as embodied by the 'true oologist' was deemed morally acceptable, whereas mere acquisitiveness or idle curiosity was not.[211] In particular, if oology was a science, then this status seemingly sanctioned activities and distress to birds that might be deemed unethical if it was a mere amusement. Such a distinction tied the ethical legitimacy or otherwise of egg-collecting to the intentions of the collector, rather than to its effects on birds and eggs.

Oologists liked to claim superior knowledge of birds and their behaviour compared to their opponents. "M.B.O.U." (1932; 77) even declared that 'all ornithologists are aware that 90 per cent. of the facts known as to the life history of birds are the results of egg collectors' notes and observations', a figure that he later claimed to be a low rather than a high estimate. The claims of oology to be a science were touched upon earlier. To a degree, on this point, oologists and their opponents were arguing at cross-purposes. To non-oologist ornithologists, taking eggs prevented study of the hatched birds. For example, Lieutenant-Colonel B.H. Ryves wrote of carefully watching nests until just before hatching, when the eggs were often taken by collectors, who therefore:

> … rob keen naturalists of valuable research work into the habits of birds under Nature's conditions beyond the period of completion of their clutches. ...
>
> Is it a wonder that the clutch-grabber of to-day is both dreaded and detested by the seeker after knowledge of the natural habits of birds? Egg-collecting to-day is directly opposed to the advance of ornithology ... (quoted in Parker 1935: 59-60)

For the oologist, on the other hand, the focus of interest was the egg and not the hatched bird, so taking eggs made perfect sense. For a dyed-in-the-wool collector such as Bunyard, by not taking eggs one would be missing out on information about the time for the bird to

[211] Today this might be couched a distinction between 'serious leisure' and more casual forms, as discussed in Chapter 5.

re-lay, the relative size of the second clutches, and so on.

The case for the defence offered by 'Autolycus', above, also reveals a related tactic of the oologists, which was to emphasise the ornithological ignorance of the protectionists and the wider public. These attacks could be quite sardonic, with a reviewer of Parker's *Ethics of Egg-Collecting* in *OR* (1935b: 66) claiming that 'his only contribution to ornithology is the fact that he sponsored ... in the columns of *The Field* the absurd theory that the drumming of the Woodpeckers was not instrumental, but vocal!' In response to an anti-collecting letter in the *Times*, *OR* editors commented that '[i]t is pitiable that Mr. Beckett should advertise his ignorance of the simplest laws of nature' (OR 1936c: 90). Protectionists were also accused of inventing lurid stories about collectors. For example, a column by Sir William Beach Thomas in *The Spectator* attracted derision, as:

> … after quoting some of the futilities of the Black Cabin gang, he proceeds to tell a really blood-curdling story of a collector who apparently pined for a white clutch of Buzzard's eggs. White eggs of this species are common enough and most collectors prefer well-marked eggs, but this eccentric individual is said to have robbed one pair of Buzzards of their eggs for nine consecutive years. The hen then obligingly laid a white set and presumably expired! But the best of the joke is that the Oological Society is said to have awarded a medal to commemorate the feat! We have heard of the Homeric nod, but the 'Beachy' head seems to make a habit of nodding. ... [T]here is no truth in the story ... (*OR* 1938a: 21)

As well as railing against perceived inaccuracies by their opponents, oologists occasionally invoked psychology to explain away opposition to collecting, claiming that '[i]t is sad to think that these well-meaning persons have this extraordinary mental kink' (*OR* 1936a: 46).

The protectionists were equally ready to characterise oologists as mentally deficient in various ways. Nicholson (1926: 226) chided collectors for their 'childishness' and declared:

> If there is one striking point about the average collector it is the extremely limited range of his ideas; there is not the stuff in him of which satisfactory villains are made. (*Ibid.*: 259)

A friend of Parker, on the other hand, described the 'extraordinary cunning and resource' and 'ruthless persistence' of egg collectors (quoted in Parker 1935: 95). Gosse (quoted in Parker 1935: 101) gave an even more pathological explanation for collecting as a manifestation of incurable 'kleptomania', which he claimed 'is well known and recognised

amongst themselves, and that no oologist dares leave another oologist alone with his treasures for a moment'.

From combat in print to meeting face-to-face

Despite these ill-tempered exchanges and mistrust on both sides, by 1939 it appeared that a truce was in sight. As reported in the *BOA Bulletin* (1946) and *OR* (1939c), a meeting was brokered by the photographer Eric Hosking between Nethersole-Thompson, who was no longer a member of the BOA and claimed to have broken up his collection, the oologist Musselwhite, and the prominent protectionists Nathaniel Tracy and Dr Manson-Bahr. Jourdain, President of the BOA, was invited but unable to attend. The meeting was chaired by Mr. Vesey FitzGerald, then Editor of *The Field*, and took place on 10 August. Nethersole-Thompson reported the meeting a success, and 'after a long a cordial discussion agreement was reached on all points of my formula' (*BOA Bulletin* 1946: 38).[212] This formula included proposals that for a list of very scarce birds drawn up at the meeting, eggs or photographs should not be taken, and that there should be Government licensing of collectors and photographers, 'provided he or she could show work of reasonable biological importance' (*ibid.*: 39) The final proposal agreed on was for '[a]ll controversial propaganda to be dropped and the fullest possible contact and co-operation between both sides to be substituted' (*ibid.*). Following the meeting the scheme was also approved unofficially by other interested parties, including high-ranking members of the oological fraternity, British Trust for Ornithology, Zoological Photographic Club, British Museum (Natural History) and even the firmly protectionist RSPB along with Eric Parker, author of *Ethics of Egg-Collecting* (1935) discussed above.

In his report to the BOA Council, Nethersole-Thompson asked collectors to 'carefully review their own position' (*ibid.*: 40) about whether their own collecting was really necessary for scientific purposes, arguing that 'the future of oology ... lies in its contribution to the study of breeding-biology' (*ibid.*), and that '[t]he truth is that if oology is to live, and if licences are to be obtained, each collector's contribution to modern ornithology must be a worthy one (*ibid.*: 41).' At the same time, he and Musselwhite had pointed out at the meeting that '"encirclement" of collectors only brought the worst out of them' (*ibid.*) and discouraged them from publishing useful research that they had carried out. Overall, however, the 1930s ended on an optimistic note for oology, given the truce

[212] The meeting was also reported in *OR* (1939b)

with prominent protectionists that was reached just before war with Germany was declared in September 1939. The political situation also shelved 'a new Bill on the stocks which, if passed, would ... have rendered field-collecting in this country almost intolerable ...' (*ibid.*).

With the meeting on 10 August, the arena of contestation between oologists and their opponents moved from spaces of print to a physical meeting where a few key people met face-to-face. In doing so, they may have realised that they had more in common than they previously thought. In the print spaces, often highly partisan, it was easy to produce caricatures of each other's position in black and white as opposed to more nuanced portrayals which may have emphasised common ground between oologists and protectionists.

After the Second World War

There was a hiatus in publication of *OR* during the Second World War, caused not only by the war but also by the unexpected death of its then editor, Jourdain, on 22 February 1940. This was an event of such significance to the oological community that the BOA was renamed the Jourdain Society in his honour. In 1946 *OR* resumed under the editorship of Congreve, who felt it necessary to assert, similarly as Skinner had done many years previously:

> We consider it to be definitely unscientific to interfere with the nests and eggs of the few British breeding species that are in danger of extinction as such, or are ... endeavouring to establish or re-establish themselves as British breeding birds. (*OR* 1946a: 4)

Discussions of protectionist and legislative issues went quiet for a few years in *OR*, with the authorities presumably having more urgent matters to tackle, and there was also no further mention of the accord reported just before the war. In the early-1950s there were a few complaints about 'rabid sentimentalist[s]' (Buteo 1950: 27) and 'the unutterable rubbish some papers print on bird matters' (*OR* 1953: 51), but far fewer than during the 1930s. Surprisingly perhaps, given that it outlawed the collecting and selling of wild birds' eggs in the UK (except those of a few common species), there was also little mention of the Protection of Wild Birds Act 1954 until it had actually been passed. Later that year a critical examination of the Act's provisions appeared, in which the hypocrisy of

protectionists was claimed by drawing attention to 'that well-known Egg-Protectionist, Lt-Col. J. K. Stanford, who recently brought back from his trip to North Africa between four and five hundred skins of small birds shot while in breeding plumage!' (Pye-Smith 1954: 36). Stanford had also 'surely approached the permissible limit of obloquy when creating his fictitious villain, the Oologist' in his novel Bledgrave Hall (1953), according to Pye-Smith (1954: 36).

Figure has been removed due to Copyright restrictions.

Figure 6.6 Percy Warler, fictional oologist, a 'little man with pursed lips and bright rat's eyes' (Stanford 1953: 45) who carried around various items to disguise his activities, such as 'the butterfly net, the clerical collar and spectacles, the capacious egg-box disguised as a camera-case, … the handbook on botany …' (*ibid.*: 46). After taking some avocet eggs, Warley is chased by the book's hero and discards his bounty. This depiction suggests that the egg collector was already becoming a folk-devil before the 1954 Act. The clerical collar was possibly caricaturing the Reverend Jourdain. (Illustration by A.M. Hughes)

In subsequent years, apart from an occasional gripe about 'the crazy legislation of vindictive cranks' (Belcher 1956: 17), legal and ethical matters were not often mentioned in *OR*. Reasons for this relative lack may have included the international fraternity of oologists who contributed to the journal, mostly unaffected by the new laws, while British collectors also continued to go abroad to collect eggs.[213] Even within the UK it is not clear to what extent the laws actually affected the average collector if acting discreetly.[214] There were still occasional fulminations about the situation, however, such as in response to a

[213] Legislation had, however, been introduced in parts of Australia in the 1930s (e.g. *OR* 1936b; Belcher 1938).
[214] Connor states that the 1954 Act 'had a negligible impact in curbing the activities of dedicated egg collectors' (personal correspondence).

quote made in *The Daily Telegraph* about the heavy fine imposed on an egg-dealer:[215]

> "This," a magistrate is reported to have said, "is one of the most serious cases of defiance of the law which this court has ever considered." Insulting a policeman? Running an illicit still? Absconding with public funds? Blackmail? Murder? *High Treason*? No, no: selling birds' eggs. (*OR* 1957a: 45)

In other respects the editorship of Congreve from 1946 mostly felt like business as usual, following on from Jourdain's and Harrison's pre-war joint editorship, with the same types of articles on regional bird life and collecting, specific species, practical matters and book reviews. It became slightly shorter, reducing from a pre-war average of 24 pages per issue to around 16 afterwards. This reduction may have reflected difficulties in obtaining enough suitable material for publication, which was a frequent complaint made by the editorial teams (e.g. Skinner 1935 12-13), leading to a heavy reliance on a few contributors at different times in *OR* history. Such gradual changes were symptoms of the long-term decline both of *OR* and of egg-collecting more generally.

Articles of a historical nature, as opposed to reports of recent activity, began to creep across the pages. Examples included 'Reminiscences of a bird-lover', detailing Belcher's years of collecting at boarding school and a rekindling of his passion for oology in early adulthood, and Congreve's 'From My Spitsbergen Diary'.[216] Perhaps more tellingly, the trickle of obituaries before the war became a flood afterwards. Compared with only five obituaries between 1921 and 1939, the first post-war issue of *OR* mentioned the deaths of Jourdain and over a dozen other oologists since 1939. A few were killed in battle, but most were older and died from other causes. Into the 1950s and beyond there was a continuous stream of further obituaries, many of them mourning the deaths of contributors to *OR*. These oologists were mostly of a particular generation, coming of age in the late-Victorian era when egg-collecting was still considered a respectable pursuit. Later generations grew up at a time when the oology was already contested, which is likely to have discouraged many people who would have been avid collectors in an earlier era. The result was that the generation of collectors that contributed to *OR* was not being replenished by new blood. The discouragement to young potential oologists was bemoaned in a letter from 'a foreign

[215] Egg-dealing was more visible than collecting and therefore more easily quashed under the new laws: 'The undoubted success of the 1954 Act was to put an end to the commercial buying and selling of birds' eggs' (Connor, personal correspondence).

[216] Belcher articles published sporadically in *OR* between 1939 and 1961 (e.g. Belcher 1957); Congreve articles in *OR* from 1952-53 (e.g. Congreve 1952), originally published in the 1920s in a short-lived American periodical called *The Comparative Oologist*.

country' in June 1961, almost certainly written by Belcher:

> I do miss not having anybody to talk eggs to – it gave me just the same pleasure whether I myself was collecting at the time or not. This little 13-year-old boy, who comes out with me at times and is very good company, is quite keen on birds, but having had egg collecting discouraged, any impulse that way has died on him, with the result that he knows just nothing of birds' habits in the field. He has eyes like a Lynx, too, and would have made a wonderful field oologist. I don't attempt to stimulate that side of him as his parents would not approve. It is getting, for me, very hard to realise in this dull socialist world that there must still be plenty of people, scattered over the globe, who find their cakes and ale in oology and maybe are quite virtuous as well. (*OR* 1961: 30)

Mention of 'this dull socialist world' was fairly typical of the overall conservative political tone of *OR* throughout its existence, although such views were rarely explicitly expressed.

Decline was not only measured by deaths, but also by infirmity. Congreve himself developed severe arthritis, which increasingly affected his collecting exploits. This ailment not only prevented him climbing trees, at which he was very good in his prime – 'Need I say how miserable I felt to watch somebody else do an easy climb while I had to look on from the ground?' (Congreve 1951: 7) – but even meant that previously simple tasks like holding binoculars became problematic (Congreve 1962). Other contributors were similarly afflicted: Colonel Wolfe of Texas also had arthritis, but circumvented the problem of climbing as 'a native Mexican can nearly always be found to do the job' (*OR* 1957b: 53). Physical infirmity thus impacted on ageing oologists' ability to indulge the more muscular aspects of their enthusiasm, and the historical articles appearing in *OR*, recounting earlier collecting exploits, perhaps provided opportunities still to enjoy these pleasures vicariously.

Congreve's illness also started to affect the day-to-day running of the journal, and it caused a delay in the delivery of the August 1964 edition. The next that appeared was to be his last. Following the retirement of Congreve in 1964, R.J.B. Christian became editor and *OR* entered its final phase, a decline that was palpable in the physical make-up of the journal. From February 1965 onwards, the printed text became starker and less harmoniously laid out. As explained by Christian in his first entry as editor, '[i]n order to reduce production costs it has been necessary to change the technique of printing the magazine and this will now be based on a photographic process' (*OR* 1965a: 1). Latin names of species, previously italicised, were now rather jarringly highlighted in bold type.

There was also a discernible shift in emphasis under Christian's editorship, with a new tagline which declared that the journal was now 'A Quarterly Magazine devoted to the study of the Breeding Biology of Birds in all parts of the World'. In contrast to its earlier stated aim of 'the advancement of Oology', the new focus on 'the study of breeding biology' was arguably an attempt to pull the journal in a more explicitly scientific direction, and can be read as a defensive gesture. There were more articles devoted to subjects that aimed to be systematic (rather than just lists of observations), such as 'A Brief Review of Factors Influencing Egg-Size in a Single Species' by Janet Kear (1965) and Christian (1965) himself providing 'Some Notes on the Ecology of the Woodlark (**Lullula Arborea**)'.[217] Kear's article also contained a list of references, which was very rare for articles in *OR*. In other respects, though, the journal was much the same as under Congreve, albeit without being suffused with quite the same personal touch.

From May 1965 there was another innovation in *OR*, with the inclusion of reports of recent Jourdain Society meetings, and dates for forthcoming meetings. (Fuller reports of the meetings also continued to be published separately for members as the *Bulletin of the Jourdain Society* (henceforth *JS Bulletin*), similar in style and content to the earlier *BOA Bulletin* discussed above.) The meetings still took the form of dinners, mainly at the Public Schools Club, Piccadilly, but interspersed with 'Provincial' dinners at the Red Lion Hotel, Salisbury. The members and guests present at each meeting (usually around 25-35) were listed in *OR*, followed by a brief summary of the exhibits shown, which formed the main focus of these events. One report mentioned the 'warmth and comradery [*sic*] which has familiarised these dinners' (*OR* 1965d: 18). The matters discussed, or at least recorded, usually still revolved around egg exhibits given by members of the Society, with a theme for each meeting such as 'Pipits' or 'the Large Waders' (*OR* 1965b: 16). Most of the meeting reports in *OR* were brief summaries, but the meeting of Friday 29 September, 1967 had a fuller report giving an indication of the type of topics discussed. For example, H.J.V.R. Allin exhibited:

> British Goldcrest (**Regulus anglorum anglorum**). One c/7 in this series has a very white ground with definite spots and blotches, unlike the other six clutches which all have a pale ochreous ground colour and a more deeply coloured cap at the large ends. (*OR* 1967: 85)

This type of observation was not dissimilar to that which had been made at the Oological

[217] As noted in Chapter 5, Kear's was the only article by a woman in the OR's entire history.

Dinners of the BOC fifty years earlier, suggesting that the oological establishment as represented by the Jourdain Society membership had not really moved on to more systematic scientific analysis of the 'breeding biology' of birds, notwithstanding *OR*'s new tagline. The membership of the Jourdain Society was gradually reducing, from 108 individual members in 1951 (*JS Bulletin* 1952) to 86 in 1968 (*JS Bulletin* 1969), although new members did occasionally join (*OR* 1967). By including reports of Jourdain Society meetings, *OR* was cementing its position at the heart of the (albeit declining) oological community.

OR survived for a few more years. The death of Congreve on New Year's Eve 1967 marked the passing of the man most closely involved with the journal since its inception, and one of the last remaining oologists born in the Victorian era.[218] Providing further evidence of the beleaguered condition of the oological community, an editorial in August 1968 reported how '[a]t a court in Scotland in March this year, the British public, through its legislature and aided by a leading bird protection organisation, wrought summary and harsh revenge upon two men who had taken five eggs of a Golden Eagle' (*OR* 1968: 43), fining them £100 each. The editor compared this 'punitive excess' with the similar fines imposable for cruelty to a child, and noted once again the lack of attention paid to other causes of harm to birds such as shooting, hunting and predation from other birds.

A year later Christian announced the closure of *OR*, explaining that:

> … whilst it would have been possible to continue this magazine in its previous form, I had come to the conclusion that this was unsatisfactory, the scope too wide yet the contribution by coverage too restricted. The alternative, which was tried, was to publish accurate coloured plates of birds' eggs, in conjunction with a limitation of text. This proved too expensive. Had it been possible to increase the circulation by quite a small amount the matter could have been solved. (*OR* 1969: 29)

In his final 'Salvete', Christian thanked various people including his assistant editor H.M.S. Blair, and gave tribute to earlier editors Congreve and Skinner, and Harrisons the publisher, who 'have been sympathetic and patient, often overlooking the commercial in favour of the aesthetic' (Christian 1969: 56). With this final sign-off, *OR* joined the ranks of the elephant bird, the dodo and the great auk in extinction.

[218] Congreve's contributions to *OR* ran from the first issue in 1921 through to 1967.

Bird Land and the Northern Oological Society

The post-war years did see the launch of another oological publication, *Bird Land*, which provides some interesting contrasts with *OR* and the Jourdain Society. *Bird Land* was published by a well-known egg dealer from the Wirral, C.H. Gowland, and was aimed at the younger collector or 'junior naturalist', as stated on the cover (Figure 6.7). At the outset, in its first issue published in April 1946, a notice gave the inevitable disclaimer:

> Although many of the articles in this magazine will deal chiefly with egg collecting, it cannot be too emphatically stated that we do not agree with, or encourage, the indiscriminate taking of eggs. ...
>
> Our main object is the teaching of fieldcraft, etc., so that those definitely interested in bird watching and nest finding, will benefit from the experiences of others. As a nation we are very ignorant of our bird life, and because of this, many ridiculous statements appear from time to time in our Press. It will be our duty to correct any of these misstatements which are brought to our notice. (*Bird Land* 1946-47a: 2)

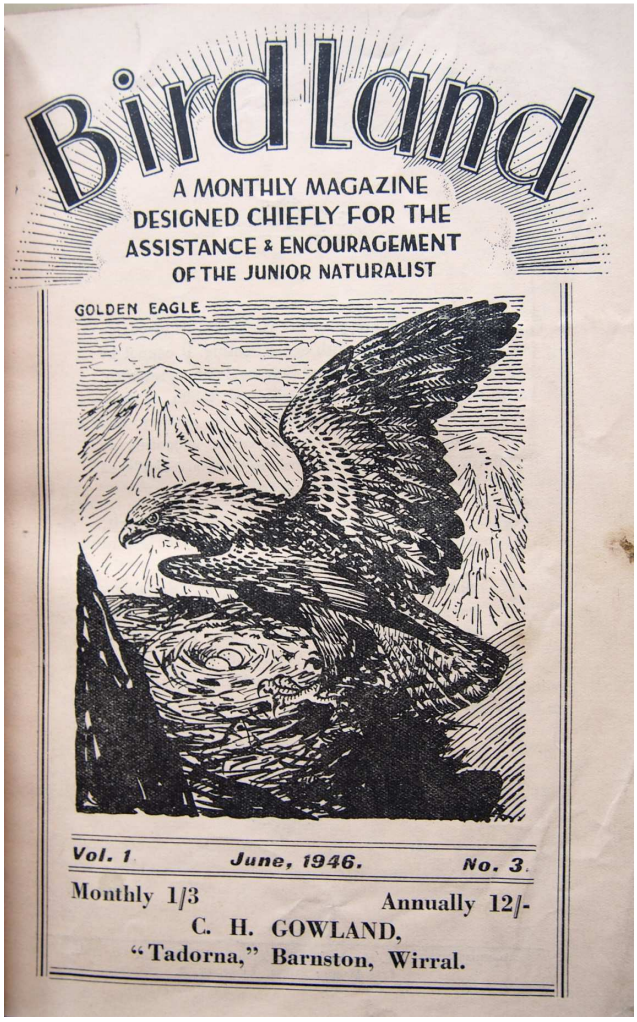


Figure 6.7 Early cover of *Bird Land* (1946).
(Material sourced from David Clugston)

Bird Land strongly carried the imprimatur of Gowland, including his 'Editor's Notes' at the start of most monthly issues. Many other articles were written by him, but he also had a team of regular contributors such as F. Watson and C.H. Bryant. Many of them wrote under pseudonyms such as 'Peregrine', 'O.C.E.' (Frank Whatmough and his wife respectively) and 'Danebury' (Alf Pearman), or initials such as 'L.R.F.' (Les Flack) (Cole and Trobe 2000). Some contributors such as Whatmough and C.B. Horsbrugh also wrote occasionally for *OR*, but most did not. A.D. Leavesley of Nottingham wrote articles on bird life in his local district, and also originally owned the complete bound series of volumes in *Bird Land* consulted in this research (see Figure 6.8). Readers were also urged to write in with reports of specific nesting trips or more comprehensive surveys of the bird life in their particular area, and it is not always clear which contributors were part of Gowland's own network of associates, and who was a younger enthusiast. As promised in *Bird Land*'s opening statement quoted above, there were also numerous pieces pointing out press inaccuracies and, in particular, attacking examples of 'This protectionist propaganda' (Gowland 1947-48, 1948-49) in other publications.. *Bird Land* also provided Gowland with space to advertise his wares as an egg dealer; for example, he highlighted a series of special offers such as 'Penguin Eggs' and 'Egg Forceps' in the first issue (*Bird Land* 1946-47b: 12), but these entries were not frequent.[219]

Figure 6.8 Stamp in inside cover of bound copies of *Bird Land* (1946) consulted in this research. (Material sourced from David Clugston)

A number of contrasts can be made with *OR*. Cross referencing with Cole and Trobe's (2000, 2011) egg collector books reveals that many of *Bird Land*'s contributors were of less privileged social status than those to *OR*. For example, Flack was 'general factotum to the Lakenheath community' in Suffolk, (Cole and Trobe 2000: 76), while Whatmough was an egg-dealing associate of Gowland's in the Wirral, who had previously run a laundry in

[219] There may have been more advertisements in the inside or back covers, but these were not included in the bound volumes consulted for this research.

Rochdale.[220] In addition, perhaps because its contributors in general were probably less affluent than their *OR* counterparts, *Bird Land* was much more focused on collecting in the UK as opposed to overseas, although there were occasional reports from other countries. Focusing on domestic bird life may also have made the contents more accessible to its young target readership. On the other hand, Bryant was a doctor and member of the Jourdain Society, so there were some links between *Bird Land* and the existing oological establishment.

Bird Land's contents had a strongly practical and observational feel, rather than attempting systematic scientific analysis. As befitted a publication for young people, there were also regular features such as 'Did You Know?', 'Your Queries Answered', and a section for 'Pen Pals' where readers could establish connections with readers from their own or other parts of the country to exchange bird notes or arrange nesting trips. As with the adult oological community, the vast majority of prospective contacts were male, but a few girls also expressed their interest. Correspondents wrote from all over England and occasionally other parts of the UK. A further feature was a series of crossword and other competitions, which to the inexpert eye look fiendishly difficult. For example, the Christmas Competition for 1949 was 'Dennis's Nightmare' which showed a number of bird sketches, each comprised of part of one species of birds combined with the remaining parts of another (Figure 6.9). If that were not difficult enough, one (unspecified) was a portmanteau of three birds instead, and one was not a composite at all but simply had a deliberate mistake in it. According to the results, the youngsters (both under and over 16) did better than the over-21s, with the best two entries both obtaining nearly full marks.[221] Prizes for competitions mostly consisted of clutches of eggs.

The eponymous illustrator referred to in 'Dennis's Nightmare' was Dennis Harle, an early subscriber to *Bird Land*.[222] As well as further drawings for competitions, he also contributed the title page, numerous illustrations of birds, and frequent humorous cartoons based around egg-collecting or birds more generally, some of which related to contemporary political events such as rail nationalisation and the coronation (Figures 6.12 and 6.13). The stylistic consistency with the article titles (e.g. Figures 6.10 and 6.11), such as 'Bird Notes from the Isle of Man' (and other regions) and 'Nature Notes' for each

[220] As noted in Chapter 5, he also played rugby league, a mainly working-class sport.
[221] The existence of an over-21s category suggests that *Bird Land*'s readership was not confined to children.
[222] Harle (1920-2001) was a successful bird artist (http://nhm.ac.uk/nature-online/art-nature-imaging/collections/art-themes/british/more/barnowl_more_info.htm#tonge, accessed on 31 July 2016).

month, implies that they were also drawn by Harle, and there were even playfully designed section and article dividers with different bird-based designs. As well as Harle's illustrations, a light touch was also provided by occasional poems from Arthur Whitaker, who died in 1949 but whose contributions were later published posthumously. They frequently dwelt on the persecution of the collector, with titles such as 'The Scapegoat' and 'Advice to a Collector'.

Figure has been removed due to Copyright restrictions.

Figure 6.9 Part of 'Dennis's nightmare' competition in *Bird Land* (1949-51: 212). (Material sourced from David Clugston)

Figure has been removed due to Copyright restrictions.

Figure 6.10 Article title in *Bird Land* (1951-53: 342).
(Material sourced from David Clugston)

Figure has been removed due to Copyright restrictions.

Figure 6.11 Article title in *Bird Land* (1951-53: 325).
(Material sourced from David Clugston)

Figure has been removed due to Copyright restrictions.

Figure 6.12 Cartoon by Dennis Harle in *Bird Land* (1951-53: 680).
(Material sourced from David Clugston)

In 1951, Gowland suggested in *Bird Land* (Gowland 1949-51: 311-313) the formation of a Northern Oological Society, to parallel the activities of the Jourdain Society but meeting in Liverpool or Manchester, and with four meetings to be held over the winter of each year (devotees presumably being busy outside in the summer months). The first meeting took place on 10 October 1951 in Liverpool, with 40 attendees from various northern English counties, Scotland and the Midlands (Gowland 1951-53a: 420), and 43 members and guests attended the November meeting (*ibid.*).[223] The next meeting, on 9th January 1952, 'was graced by the presence of several lady members and friends' (A.G.S.1951-53: 467), indicating that the Northern Oological Society was more progressive in its membership rules than the male-only Jourdain Society. The official content of the meeting was nonetheless similar to that of its more established southern counterpart, with the President (presumably Gowland) giving a 'paper on the Order Accipitreformes' (*ibid.*) and exhibits by other attendees of clutches from this group of birds, including golden eagle, peregrine falcon, and a clutch of five buzzard eggs. Of this latter exhibit, '[d]uring the break controversy raged high as to whether the eggs were laid by one bird or were the product of two females laying in the same nest' (*ibid.*). Later meetings also included film showings and a lantern lecture, with attendance reaching up to 60 on 10 September 1952, when some attendees 'decided to carry on their conversations and reminiscences until there was a danger of their being locked in for the night' (Gowland 1951-53b: 602).[224] These meetings may have provided a rare chance for young enthusiasts to meet their peers from around the region, perhaps including members of the opposite sex.

Cole and Trobe (200: 101) state that *Bird Land* was 'essentially a marketing vehicle for egg sales'. This view appears rather unkind, given the amount of effort that its publication must have entailed, which suggests instead that Gowland was genuinely attempting to create a forum in print for young oologists. The meetings of the Northern Oological Society also provided a physical space for them and possibly also older enthusiasts to come together in person, despite being too remote from the south east of England to attend Jourdain Society dinners. Regular subscriptions to *Bird Land* were reported in 1950 as running 'a couple of hundred' short of the break-even figure of 750-1000 (*Bird Land* 1950-51a: 133), which still suggests that there were over 500 regular subscribers. By mid-1953, however, Gowland reported that it was time to cease publication of *Bird Land*. Although

[223] This meeting was reported under the title 'The Royal Oological Society': a Freudian slip, perhaps.
[224] The excitement implied here brings to mind an early 1950s version of the later 'Northern Soul' scene, with devotees from benighted northern towns coming together to celebrate their passion, but with rare clutches instead of obscure soul singles as the objects of collective devotion.

he ‘was quite prepared to stand a small financial loss per issue’ as ‘our contribution to the cause of oology’ *Bird Land* 1951-53: 682), a considerable drop in subscriptions (200 since January 1952) meant that the gap between costs and revenue had become too large. Gowland signed off by avowing that ‘[f]rom the beginning, I have endeavoured to show the younger school of naturalists the scientific side of oology; to point out to them that the taking of eggs cannot possibly do the slightest harm to birdlife provided you know what you are doing’ (*ibid.*: 684). It was a timely departure, since the following year the Protection of Birds Act 1954 outlawed the sale of eggs despite the Northern Oological Society writing ‘a well-prepared circular to Members of Parliament, seeking their support to overturn the Bill’ (Cole 2006: 85).[225] This made Gowland’s livelihood illegal, although he continued to sell eggs and was ‘soon the subject of a prosecution brought by the R.S.P.B. and heavily fined’ (Cole and Trobe 2000: 102). He died of a heart attack playing cricket in 1957 aged only 57 or 58. With *Bird Land* and the Northern Oological Society, Gowland had created spaces for a brief northern (English) flowering of collective youthful enthusiasm for oology, more inclusive than the ageing and more established *OR* and Jourdain Society.

Figure has been removed due to Copyright restrictions.

Figure 6.13 Topical cartoon by Dennis Harle in *Bird Land* (1951-53: 644).
(Material sourced from David Clugston)

[225] Cole (2006) calls the Society the Northern Oological Association, but it was called a Society in *Bird Land*.

Conclusion

The spaces of oology, understood as a formal collective, took a variety of forms, including meetings of a handful of enthusiasts in popular central London restaurants, the organisational space of the BOA, and print spaces such as *OR* and *Bird Land*. Polemics about egg- collecting by both its supporters and its 'protectionist' detractors took place in a composite space arising out of the arguments in various different printed sources such as journals, the national press and books about ornithology. The broadly chronological account given in this chapter reveals how events in one type of collective space could have repercussions in others, such as when the exhibition of red-backed shrike eggs by Chance at a oological dinner in 1921 caused a furore that reached the letters pages of *The Times*, leading to the formation of the BOA.

These spaces were very important for a number of reasons. They provided an opportunity for oologists to declare themselves as oologists, forging self-identity. They also allowed oological knowledge to circulate between individuals, a topic – how scientific knowledge travels – which has been of increasing importance in science studies in recent years (e.g. Secord 2004). Also very important was their role in providing a place of refuge in the face of attacks from the opponents of egg-collecting, and occasionally as spaces from which rebuttals and counter-attacks could be mounted, as shown here. Oology presented the unusual case of a self-styled 'science' seeking to justify its existence as it came increasingly under attack from other interest groups, the public at large and, eventually, the law. Oologists claimed that they were engaging in a legitimate form of scientific enquiry, one that they sought to establish as a sub-field of ornithology, even as many ornithologists sought to disown the practice. The collective structures discussed in this chapter provided oology with the formal trappings of a science, in physical and other spaces where its practitioners could disseminate research findings, earning them (ideally at least) the respect widely accorded to established scientists. To its detractors, the supposedly scientific credentials afforded oology were a sham, 'nothing more than a cloak for miserly accumulation' (Coward 1927: 202). In the face of such critique, forming and acting as a collective can be read an act of defiance and solidarity by oologists, demonstrating resilience in the face of efforts to curtail or prohibit their activity.

OR in particular provides a vivid case of a culture of natural history (Jardine *et al.* 1996), based on egg-collecting, fostering its own self-identity or 'idioculture' within the space

provided by a specialist journal, as well as furnishing many curiosities of varying credibility (see Text Box 6.1). The medium of the journal allowed interaction between geographically dispersed devotees of oology, many of whom never actually met in person, and permitted the creation of shared values such as the need to keep accurate data, the importance of 'cragsmanship' and the hostility of ignorant 'outsiders' such as bird protection groups and mere 'birdwatchers'. These articles of faith served to mark out the territory of the 'true oologist' as opposed to more casual collectors. *Bird Land* performed a similar function for younger oologists, but for a far shorter period just before egg-collecting was largely made illegal in the Protection of Birds Act 1954. After that date, oology as a collective continued on its slow decline, and with the closure of *OR* in 1969 it lost its public mouthpiece.

The course of *OR* between 1921 and 1969 charts the decline of oology as a practice, as it changed from being a respectable pastime to a wildlife crime, coupled with the ageing and death of many of its chief practitioners. This trajectory was also broadly coterminous with the shrinking of the British Empire, whose servants and outposts provided so much of the journal's material. In the pages of *OR*, and in the other collective spaces of oology such as the BOA and its meetings, birds' eggs were the focus of both scientific enquiry and more visceral forms of enthusiasm, a dualism already encountered in Chapters 4 and 5. This dual nature of oology was even captured succinctly in the last ever page of the *OR* when the editor, Christian (1969: 56), optimistically declared: 'I have no doubt that oology will remain and will flourish upon the same basis as always – half scientific, half adoration'.

Text box 6.1 Some curiosities from *The Oologists' Record* and *Bird Land.*

Quite unlike the beautiful song of the genus *Turdus* in general, it is the voice of a ghost coming from the forest gloom at night or out of the sombre mists of a foggy day. The natives of the locality heartily dislike this call because they think it forebodes bad luck and is a harbinger of an accident. ...

Furthermore, the Ainu, our aboriginal tribe, members of which are still to be found in Hokkaido, are said to worship all animals and birds as gods with the one exception of this bird. The reason for this exception is that they believe this species of thrush respirates through the anus. (Kobayashi 1956: 49)

If, in fairness, one could mention a drawback, it would be the bird's invariable habit of hailing the advent of dawn, even were the cage completely covered with a dark coloured cloth. To the poetic mind, this might have its appealing side, but in the case of the sleeper who had been up during the midnight hours, a somewhat opposite effect was produced. (Cochrane 1950: 23)

I took no waterfowls' eggs at Jinja. There were no reedy backwaters within easy reach, as at Entebbe, but it was the crocodiles that discouraged search on my part. The allergy I have always had for this reptile was heightened at Jinja by a cautionary tale with which a newcomer was entertained. A P.W.D. employé had been grabbed while washing at the lake-edge, near my house of course. His companion watched in dismay while he was being towed, still uninjured, towards a midway islet. He began at once to shout back directions as to how his rupees were to be divided between his wives, and had entered upon something of a codicil when he disappeared. (Belcher 1961: 57)

Mrs. A. Vickers saw a seagull yesterday in her garden at Kentish Town, London. It did not move even when she offered it breadcrumbs. She thought it was injured and called the R.S.P.C.A. An inspector found the cause of the bird's immobility. It was stuffed. – (Daily Express) (*Bird Land* 1950-51b: 254)

Before leaving this district I should like to include a few notes regarding the local inhabitants – "Homo sapiens scourian.." [Scourie is a village in north-west Scotland.] It is a silent subspecies having no true song, but a very subdued sub-song has been heard emanating from the males approaching closing time, 9 p.m. (Sundays excepted), in the Hotel bar, between alternate inhibitions of beer and nips of "Highland Dew." He frequents peat diggings, roadsides, and land of the Forestry Commission during weekdays, but takes to thick cover on Sundays (the bar being closed) and remains very close to the nesting hole from which he is only with difficulty dislodged. He is not an easy subject for study owing to his skulking habits. I much prefer the Oystercatcher. ("Blue Dun" 1952-53: 728)

Chapter 7. The Museum

Introduction

This chapter focuses on the treatment of egg collections by museums in general, and by GM in particular. Having to this point followed birds' eggs and egg collectors from the field into the individual collection and the various social spaces of egg-collecting, the museum is the final space to be considered in this thesis. Notions of difficulty relating to museums will be introduced, focusing first on examples from GM in the sphere of art and human history, before considering potential difficulties that could arise in the case of natural history collections. Next, the processes of acquiring, accessioning and cataloguing collections will be considered, taking the Liddell collection, donated to GM during the course of this PhD project, as an example. The value of museum birds' egg collections for scientific, cultural/historical and artistic purposes will be discussed briefly, before focusing in more detail on issues pertaining to museum display.

A recurring theme across this chapter is the diversity of ways in which egg collections can prove difficult for museums. Egg collections have their own facets of ethical, conceptual, legal and practical difficulty, based on their specific cultural and material attributes. Also significant, however, are the ways in which general issues of difficulty for museums, such as budgeting and resourcing constraints, impinge on egg collections. These more general forms of difficulty are revisited towards the chapter's end. Much of the material in this chapter is based on my own experiences of contributing to the work of GM, in particular my involvement in taking receipt of the Liddell collection, and later in curating a new egg display at GMRC. As such, I have elected to write in the first person to a greater extent than in earlier chapters, marking something of a stylistic shift.

Are some types of museum collections inherently difficult, or does their difficulty depend on the context in which they are being considered? Bonnell and Simon (2007: 67) argue the latter:

> … what might be experienced as difficult subject matter does not rest with particular objects nor the events to which they refer. Rather the experience of difficulty resides in the efforts to make meaning that are constituted in the relationship between a visitor and the material presented in an exhibit, a relationship that is always specifically contextualized.

Perhaps, however, there is an asymmetry in terms of which type of subject matter proves difficult. Almost anything can be treated as difficult if a particular lens is applied to it; for example children's toys could be exhibited in the context of stereotyped gender roles, rather than simply as enjoyable relics of childhood. Difficulty in this type of case does, then, depend on context rather than resting in the objects themselves. Alternatively, some subject matter arguably just *is* inherently difficult, at least in almost any meaningful context that might be considered. Take, for example, one of the case studies that Bonnell and Simon (*ibid.*) discuss: the experience of female prisoners at the Nazi concentration camp of Ravensbrück. It would be very challenging to conceive of a context in which this subject matter was not seen as difficult, and did not require great sensitivity in its telling.[226] Of course, birds' eggs are not obviously difficult to anything like the same extent as human genocide, mass murder or rape. But the context provided by the legal situation, and the figuring of the egg-collector as a folk-devil in modern society, means that birds' eggs do *de facto* present difficult subject matter in modern-day Britain. Even if a museum chooses to exhibit eggs purely as natural history specimens like any other, ignoring their problematic (difficult) history, this wider context sits in the background, threatening to impinge. So, while it may be the case that difficulty always depends on context, sometimes that context is so pervasive as to be inescapable. Perhaps the real difficulty with birds' eggs in museums is the extent to which this wider context should be acknowledged and, if so, how it should be tackled. GM as an institution has a track record of progressive responses to different aspects of difficulty arising in relation to museums, collections and displays. Some specific cases will now be discussed to illustrate more general themes.

Difficulties of custodianship: repatriation

One of the most potent and problematic manifestations of difficulty for the modern museum has been repatriation. Museums have traditionally amassed objects from other places and other people, assuming a role as depositories for cultural artefacts sourced from all corners of the globe. In the past, and especially during the main period of colonial expansion, cultural objects were often removed without the consent of the people who were their traditional custodians, even if the transaction that brought objects to a museum was technically legal. Given this vexed history of acquisition, it was perhaps inevitable that

[226] The exception might be if this exhibition were to take place in a highly fascistic and/or misogynistic society, but in this situation it would be highly unlikely to take place at all.

some museum holdings would later be challenged by groups who regarded them as having been unethically appropriated (stolen, effectively). These appeals by national governments, or by groups of indigenous people, for the repatriation of museum objects have gained in strength over recent years. The most famous case is that of the Elgin Marbles held in the British Museum, taken from the Parthenon in Athens in the early nineteenth century when Greece was under Ottoman rule (Simpson 2002). For many years the Greek government has called for the return of the carvings, as yet unsuccessfully. Most successful requests for repatriation have involved human remains; GM, for example, has repatriated four sets of Maori and Australian aboriginal remains since 1990 (Curtis 2014). An early, highly publicised case of the successful repatriation of another type of cultural object was that of the Lakota people's Ghost Dance shirt by GM in 1999 (Simpson 2002; O'Neill 2006; Allan 2013; Curtis 2014).

Figure 7.1 Ghost Dance shirt replica at Kelvingrove.
(© CSG CIC Glasgow Museums Collection).

The shirt (Figure 7.1), believed by followers of the Ghost Dance religion to protect its wearer against bullets, was originally taken from the body of a massacred Lakota Sioux tribe member at Wounded Knee in 1890. It was then acquired by 'Kelvingrove Museum … from a member of Buffalo Bill's Wild West show which visited Glasgow in 1892' (Simpson 2002: 207). After a Cherokee lawyer saw the shirt by chance at a temporary

exhibition in Glasgow, a request was made in 1994 by the Wounded Knee Survivors' Association, for its repatriation. This request was initially rejected by GCC (Glasgow City Council, the legal owner of the GM collections), but in 1998, after a further appeal on behalf of the Lakota, the matter was re-examined. This time GCC decided in favour of repatriation, having considered the request based on five criteria, including the importance of the shirt to the Lakota community and its likely fate if returned.[227] In an unusual move for such decisions, however, GCC added conditions for the return to ensure the survival and public display of the shirt, and stipulating that the role of Glasgow in the shirt's history must be mentioned. GCC was given a replica shirt by Marcella LeBeau, representative of the Lakota People, which remains on display at Kelvingrove Museum to tell the story of the original item and its eventual repatriation. By highlighting the story of the shirt and thus its difficulty, this display provides a broad precedent for other difficult displays, such as birds' eggs. Glasgow's role in the repatriation of the shirt has not been without its critics, in particular for its imposition of conditions on the return (hinting at continuations of power and dominance over the shirt), and the fact that the intention 'to establish educational links between Glasgow Museums and the Lakota communities has not been fulfilled to date' (Allan 2013: 77). The repatriation was, however, groundbreaking and widely lauded.

Not all repatriation requests to GM have been successful. For example, a 1994 request (by an individual rather than a group) for the return of another Lakota artefact was rejected. A different request was made by the late Bernie Grant, MP, for the return to Nigeria of bronze and ivory artefacts originally taken from the Oba (King) of Benin. This claim was rejected in 1996, with GM voicing concerns for the safety of the artefacts if they were returned. GM also argued that the items were representative examples of their type, rather than being uniquely important for Beninese culture, and that, as such, repatriating them could set a precedent for many other collections of artefacts held by GM and other museums (GCC 2000). By being receptive to repatriation requests in principle, and sometimes in practice, however, GM has taken a progressive approach to repatriation. Mark O'Neill, Head of Curatorial Services at the time of the Ghost Dance shirt repatriation, reflects that, '[i]f museums are to be centres of civilisation[,] they need to see repatriation not as a problem which they should avoid 'being dragged into', but as a

[227] Another factor in the decision was the overwhelming public support for returning the shirt (O'Neill 2006; Allan 2013).

welcome and intrinsic part of their role' (O'Neill 2006: 126).[228] The same sentiments might also be applied to other difficult museum collections, birds' eggs included.

Difficulties of display

Repatriation presents difficulties of *ownership* and *custodianship* for museums, but there are also numerous types of difficulty relating to museum *display*.[229] Some displays or exhibitions may prove controversial, such as those dealing with religious or political matters (especially in combination). GM has to be particularly aware of the history of sectarian tension between Catholic and Protestant communities in Glasgow, and how this may affect visitors' interpretation of displays about a variety of subjects. For example, when Glasgow's Gallery of Modern Art (henceforth GOMA) included a photograph depicting Bloody Sunday in an exhibition 'Living With War: Artists on War and Conflict' (2013-14), some members of the public complained that the events were shown from a one-sided perspective without appropriate balance.[230] Displays about ostensibly more innocuous topics can also cause offence to certain people or groups, based on their cultural concerns.

A recent incident involving GM illustrates various controversies over museum display, during the recent temporary exhibition 'Devils in the Making: Glasgow School of Art and the Collection' which ran at GOMA from 18 September 2015 until 28 February 2016. Included in the exhibition was Ross Sinclair's light installation *We Love Real Life Scotland*, consisting of a neon sign that flashes 'We ♥ Real Life Scotland' surrounded by twelve smaller signs declaring 'we ♥ …' covering various aspects of Scottish cultural identity and stereotypes, such as Robert Burns, Bannockburn, alcohol and parsimony. The artwork was displayed on the outside of the gallery building (Figure 7.2), and two of the signs – 'We ♥ Culloden 1746' and 'We ♥ the Highland Clearances' – caused numerous

[228] Spoliation claims form a special type of repatriation claim, by individuals (or their heirs) seeking the return of, or compensation for, objects that were taken during the Nazi era (1933-1945) and which have ended up in public UK museums or art galleries. A Spoliation Advisory Panel, peopled by museum professionals, academics, lawyers and other experts, was established in 2000 by the UK Department for Culture, Media and Sport to assess cases and issue recommendations, although its decisions are not binding on institutions. For example, in 2005 GCC made a payment for a 'Still life attributed to Chardin' following a judgement by the Spoliation Advisory Panel (Curtis 2014).

[229] The distinction between ownership and custodianship is important for human remains because legally 'it is not possible to assert rights of ownership over … [human remains] in Scots law', although rights of possession may still apply (Museums Galleries Scotland 2011: 32).

[230] GOMA is run by GM.

complaints from visitors. The latter sign was also attacked when somebody threw blue paint at it.

Figure 7.2 Ross Sinclair, *We Love Real Life Scotland*.
(Artist's photo, from https://galleryofmodernart.wordpress.com/2015/10/22/art-context-real-life/4625-001/ accessed on 2 August 2016)

The incident prompted GOMA curator, Martin Craig, to write a blog post explaining the context of the work, with a link to a statement that Sinclair had written (Craig 2015; Sinclair 2015). These pieces helped to defuse unfavourable sentiment and the number of complaints reduced, since people could now understand its context more clearly. For example, Craig quoted Sinclair's explanation that:

> Of course no one really 'loves' the Highland Clearances, for example, but lasting images/national treasures held in National Collections by artists such as Landseer, the more gritty realism of Thomas Faed's 'Last of the Clan' or the depopulated grandeur of the highlands celebrated in Horatio McCulloch might suggest otherwise. This raises questions to which there are no easy answers. Are these images now so ingrained that they are part of us, or are we part of them? (Sinclair 2015)

It is possible, likely even, that the individual responsible for the paint attack was not aware of these subtleties. Online platforms and social media can be useful ways for museums to react quickly to difficult situations, although they cannot remove the risk of adverse, even aggressive, reactions to certain types of display. They can also be a double-edged sword, since outrage may be stoked through these media as quickly as it can be assuaged.

As well as highlighting the risks of showing work dealing with difficult subject-matter, the incident shows that the catalysts of controversy can be difficult to predict. When Sinclair's installation was first shown, at an arts festival a decade earlier, it was expected that the sign saying 'We ♥ alcohol' would cause the most disquiet and one councillor demanded its removal (Craig 2015), but in the end no furore arose on that occasion.[231] That sign did not generate complaints among visitors in the more recent exhibition either, whereas those that mentioned difficult historical events in Scotland's history touched a raw nerve with some visitors. Public reaction can hence be hard to predict, and can shift over time, reflecting wider societal shifts such as a rise in nationalist sentiment (Craig 2015). Given these uncertainties and trends, museums should arguably not attempt to second-guess public reactions to certain exhibits by removing them. It is also doubtful whether visitors are best served by the removal of items from display for fear that they may cause offence. Part of the role of museums is arguably to provoke, within limits that are always being tested and negotiated, as well as to educate and to entertain.

A further question relating to exhibits that have proved difficult for museums is the extent to which this difficulty should be explicitly mentioned to subsequent visitors. One approach is to incorporate these events into the story of the objects that they tell to visitors in text panels and labels, as with the Ghost Dance shirt replica. Online information associated with a display is another way of alerting visitors to difficult aspects of objects' history; for example, a GM webpage about one of Kelvingrove's most famous exhibits, Salvador Dali's *Christ of Saint John of the Cross*, mentions that the painting has been defaced twice since being bought in 1952.[232] Alerting visitors to these types of difficulty, however, is not necessarily an unalloyed benefit. Focussing too heavily on difficult aspects of a museum object or artwork may direct visitors' attention in certain ways, closing down a more spontaneous response. For example, if Sinclair's work were to be shown in another ten years with information about the paint attack, this might direct attention to the Highland Clearances sign when visitors might, left to their own devices, find the signs professing, say, 'We ♥ parsimony' or 'We ♥ failure' to be more provocative. Alerting visitors to difficulty is best done with a light touch.

[231] This demand was refused by the organisers of the festival where the work was shown. Because the collections managed by GM is owned by GCC, and some council representatives may feel justified in exerting pressure about museum displays that they feel are inappropriate. This provides another example of how politics can impinge on museums.

[232] The web page can be accessed at http://www.glasgowlife.org.uk/museums/kelvingrove/about/collection-highlights/Pages/Christ-of-St-John-on-the-Cross.aspx. The labels within the gallery do not mention the defacements.

Natural history museum collections and difficulty

To date, while some types of artefact have proved difficult for museums in ways discussed above, most natural history collections have been left to languish in relative peace. They have not yet been the subjects of repatriation or spoliation requests, and it is unlikely that they would be so in future, given the way that most, if not all, such collections were not taken from indigenous groups or looted from individuals by the Nazis. That said, the notions of justice underlying repatriation claims could be applied to natural history specimens in a slightly different way. They were taken without 'consent' by their human collectors – in the case of birds' eggs, from the birds who laid them – a situation which could lead some to argue that they should not be kept or shown, even if there is no community to which they would be returned.[233] Taking this line of argument, linked to animal rights activism and social theories concerned with animal agency, human individuals and institutions do not have the right to amass and display the bodies and eggs of other living things, a stance plainly antagonistic to views about human entitlements to collect from nature that were expressed by oologists, as discussed in Chapter 6. Thus attitudes to natural history collections can reflect wider questions as to the appropriate treatment of the animal world by humans, including challenges to the widespread 'ethical invisibility of non-humans' (Jones 2000; 274).

A parallel might be made with zoos, which cause many people ethical discomfort and have been the subject of widespread attack from those opposed to the exploitation of animals (e.g. Jamieson 1985; Kemmerer 2010). With natural history specimens, a difference arises in that they are no longer alive, so cruelty towards live animals is no longer a direct issue, but the ethical question shifts to whether keeping and especially exhibiting such collections implicitly indicates approval for their having been taken in the first place.[234] A wider ethical question is whether it engenders a world-view in which the natural and animal kingdoms are seen as resources for human curiosity and enjoyment. Do non-humans have the right not to be stared at by humans, even when they are no longer alive? Generally, it can be observed that natural history collections can be emblematic of wider questions about the ethics of human responsibility towards animals. While animals (and 'nature' more broadly) cannot speak in order to make their own claims, it is possible that human

[233] These claims extend some of the charges levelled against egg-collecting by their protectionist opponents, as discussed in Chapter 6.
[234] The degree of ethical difficulty may vary according to differing circumstances of collection, for example specimens that died of natural causes, or roadkill, versus big game specimens that were shot to order.

groups claiming to represent them might seek to have natural history specimens removed from display, or even have collections destroyed. These demands have not been common hitherto – for example, only a handful of people have complained in visitor responses to GM about showing dead (mounted) animals – but they could conceivably grow in importance in the future, for example through an extension of ideas of animal liberation (Singer 2009) or Critical Animal Studies (Taylor and Twine 2014; Gillespie and Collard 2014).

Although the holding of eggs by museums has not to date been widely challenged, egg collections are difficult today for museums in a way that a hundred years ago they were not. The considerations about natural history collections in general are compounded in the case of birds' eggs by the pariah and illegal status of egg-collecting, which attracts widespread public disapproval of the practice. It should be emphasised that, although egg-collecting is largely illegal in the UK, museums can legally hold and display egg collections, even those originally taken illegally from the wild, by obtaining a licence. Potential complications would only be likely if species on the CITES lists were to be loaned outside the UK, and especially to the USA.[235,236] However, despite the fact that museums generally hold egg collections within the law, they are still accompanied by a taint of illicitness. The fact that egg-collecting became illegal within living memory, while still a popular pursuit, may contribute to the difficult status of egg collections. Shooting birds for collection is also illegal, but it was never widely popular and largely died by the early twentieth century, rendering it effectively a long-dead practice barely in most visitors' ken. Other forms of natural history collecting, such as of seashells or geological specimens, are not illegal or otherwise widely disapproved of.[237] Egg-collecting inhabits a middle ground, hugely popular within living memory, but now illegal and arguably totemic of the unacceptable human interference with the natural world. To the extent that they are a subject of media interest, present-day collectors are portrayed as social pariahs (e.g. Barkham 2006; Rubinstein 2013), but anecdotal evidence indicates that a surprising number of middle aged and older people will attest to having collected eggs when younger. Museums need to consider the extent to which they want to acknowledge, even to

[235] As outline in Appendix 1, CITES is the Convention on International Trade in Endangered Species of Wild Fauna and Flora, which includes lists of species for which trade or export is tightly controlled and requires licences.
[236] An example of legal difficulties involving museum natural history came with the Ghost Dance shirt discussed above, which contained eagle feathers. Movement of any part of CITES-listed species across the US border is closely controlled, and bringing the shirt back to the USA required amending federal law.
[237] Butterfly collecting has largely died out, but it is not illegal (except in the case of protected species) and arguably does not attract quite as much oppobrium as egg-collecting. See, for example, Marren (2015).

highlight, the past popularity of egg-collecting, its current illegality and perhaps also the undoubted allure of birds' eggs. While these questions create difficulty around egg-collecting, they also provide the opportunity for intriguing and fascinating the public in ways not always possible with less controversial or problematic subject matters.

One approach to dealing with the difficult status of egg collections is to keep them hidden away, unpublicised and out of the public gaze. In practice this fate awaits most museum eggs collections regardless of motive, since the vast majority of museum holdings at GM, as at many other institutions, are hidden away for much more practical reasons, such as a lack of public display space. If eggs *are* to be displayed or otherwise made visible, highlighting their difficult status is not always appropriate or necessary. From a strictly zoological point of view, eggs are merely one type of specimens among many others, and should not require special treatment. An additional argument runs that museums do not usually feel obliged to display stuffed birds or animals with a notice emphasising that shooting them is (in most cases) usually now illegal, so why should they feel obliged to caveat their egg collections with similar notices?[238] For certain types of display, such as those concentrating on biological or taxonomic characteristics of eggs, these arguments have some force, and many museum egg displays (including at GM) take this approach and do not highlight their status as difficult subject matter. For other displays, such as those seeking to explain some of the cultural history and practices of egg-collecting, I contend that it may be more appropriate to mention aspects of difficulty, an approach which can enrich visitors' understanding of eggs as artefacts of cultural history as well as specimens of natural history.

One such approach could be to emphasise the present-day legal situation and pariah status of egg-collecting, possibly as part of a wider display about wildlife crime and threats to conservation. At first glance this might seem to be a full and frank acknowledgement of difficulty concerning egg collections, but such a black-and-white stance can hide as much as it reveals, for simply asserting 'egg-collecting is bad' is a rather one-dimensional response to a complex phenomenon. By concentrating solely on the negative aspects of egg-collecting, this response misses the opportunity to give a more nuanced presentation, exploring the allure of eggs and seeking to understand why many people did (and a few still do) want to collect them, while at the same time not condoning these practices. This

[238] Douglas Russell (Senior Curator, Birds) argued for these reasons against having such labels on egg display at the Natural History Museum.

latter type of approach allows for a richer treatment of birds' eggs, and egg-collecting, than either simply ignoring any issues of difficulty or providing blanket vilification.

Having introduced the notion of difficulty for museums and for their egg collections, the discussion will now focus on the process of how egg collections come to be in museums, and how they are used once they are there, before returning to the question of display. Different aspects of difficulty, both conceptual and more practical, will arise along the way.

Oologists, museums and donations

Judging by the comments of collectors in *OR*, oologists had sceptical attitudes towards museums. For example, the editors (*OR* 1935a: 6) complained about 'the casual and unscientific manner in which' eggs were displayed in the public galleries of the Natural History Museum. The neglect of donated collections was another concern, with mention of 'frightful accounts' of eggs being 'sometimes stored in unheated passages, garrets of cellars, and of course just rotting away from mildew and dirt' (*OR* 1957: 16). A report following raids on collectors in Australia, where new laws were introduced in the 1930s, was particularly despondent:

> Meanwhile, readers of this journal may feel disposed to extend their sympathy to those whose treasured collections, mementoes of happy days in the bush and many a perilous climb and patient watch rewarded, have, to gratify the spite of a few, gone to museums where, if the custodianship is no more sympathetic than it so often is in other hands, their fate is gradually to fade into mere colourless shapes under the gaping stares of such small boys as may think it worth while [*sic*] to idle away a rainy hour in the galleries. (*OR* 1936: 83)

These criticisms evoke the claims of Chatwin's (1988) porcelain-collecting character Utz, that objects die in museums when away from the loving attention of the individual collector.[239]

Despite these reservations, many collectors were aware that their collections might not best be preserved by bequeathing them to uninterested spouses or children. As an alternative, a

[239] As well as the criticisms discussed here, the valorisation of 'field men' over 'museum men' (used as a synonym for 'cabinet men'), implies a degree of disdain among oologists for curators, although the term ''museum man' was used in a general sense to mean any collector who did not personally take eggs from the field (see Chapter 4).

national oological collection was mooted in *OR* as early as 1948, to which individual collectors could donate their collections, and where they could be kept separately or perhaps combined into 'one vast collection, each clutch bearing the name of the collector' (Prynne 1948: 26). The idea did not take hold immediately, but by 1965 the foundation of the Jourdain Society National Collection was announced, to be housed at Gloucester Museum (*OR* 1965c). The Collection was later transferred to Oxfordshire County Council, and is currently being moved to the Natural History Museum collection at Tring. Many other private collections have been donated to museums across the UK.

The GM egg collections have been amassed since the early days of the institution and its predecessors. The catalogue for the Kelvingrove Museum Natural History collection notes a donation in 1873 of 'Eggs & minerals' by a Mr Ferguson of Hillhead, with further small donations of eggs by other donors listed later that decade. Donations have continued sporadically ever since, some of just a few eggs, but others numbering into the thousands. Today, donors permanently transfer legal ownership and control of their collections to GM, but in the past processes were less formal and documentation is not always available. Correspondence at GMRC records that one of the GM collectors asked for their collection back a few years after donating it, but received a polite refusal from the then Keeper of Natural History, Charlie Palmar.[240]

Donations do not just require the consent of the donor, but also of the recipient. In GM, potential acquisitions are discussed at monthly Collections Meetings, which include Research and Curatorial management staff such as Richard and Helen, along with representatives from other sections of GM. A number of factors affect the decision to accept or reject an acquisition, such as the fit with existing museum holdings, available space, and the museum's ability to commit to future care. Cost is another crucial factor. Egg collections cannot legally be bought or sold so they do not have any purchase cost, but the costs of taking receipt of any new acquisition, and ongoing care, must be considered. In the past, some collections were purchased, with £4 10s. paid for the Myatt collection in 1959, for example. Originally the Cross collection was to be numbered among them, and £200 was offered to Cross's widow, but in the end she offered the collection as a gift instead. Sometimes individuals donated their eggs but not their cabinets, which could be valuable if made of expensive wood. Arrangements where a donor has been paid a sum for the cabinets, with the eggs included for free, occasionally occurred in the past, but are no

[240] Palmar was Curator of Natural History at Kelvingrove from 1949-1984, and hired Richard.

longer permitted as the practice is effectively a thinly disguised payment for eggs, completely forbidden under current legislation (see Appendix 1).

Acquiring and accessioning collections: the Liddell Collection

During the second year of this project, news came from Richard of a new egg collection offered to GM. A prison officer, Keith Liddell, had been convicted in 2013 of trading in birds' eggs to amass a collection (rather than collecting eggs from the field himself). His house in Inverness was raided by police in 2009 after the RSPB noticed emails between him and another trader in eggs, Andrew Seed of County Durham. In Liddell's house the police found eggs secreted in various places, but mainly in a 'concealed void' behind a bookcase in the loft (according to labels attached to the egg containers by the police), the space of Liddell's home having thus been adapted to house, and in this case hide, his collection. The crime of trading in birds' eggs can carry a prison sentence, but Liddell escaped with 220 hours of community service. Following his conviction, the eggs were offered first to National Museums Scotland in Edinburgh, but their egg collections were just about to be moved to a new store, and a significant new collection being added during the transitional period would have caused logistical and resourcing difficulties. The Senior Curator specialising in birds, Bob McGowan (see Chapter 3), declined the offer, but he suggested GM as an alternative home.

The collection, comprising 2,307 eggs in almost 600 clutches, was being held at Fort Augustus Police Station, south of Inverness. They had been clogging up one of the interview rooms there after being moved between Liddell's house, another police station in County Durham and the RSPB's headquarters at Sandy, Bedfordshire. I was invited to accompany Richard and Logistics Technician Andrew Sinclair, in driving up to Fort Augustus to take receipt of the eggs. We set off from GMRC on 31 March 2014, with Sinclair driving the van, and arrived at Fort Augustus, 140 miles from Glasgow, in the afternoon. There we were greeted by PC Aros Mathieson, who showed us the collection.

The eggs were kept in all manner of different containers, such as boxes for cigars, confectionery and ice cream, even some egg cartons, as well as a few cabinet drawers. Each container was wrapped in plastic with a police evidence label attached and packed together in larger boxes (Figure 7.3), some of which aptly said 'Eggs for egg lovers' on the

side. Richard photographed each item and we packed them into bigger boxes, brought from GMRC, before loading them into the van (Figure 7.4). Once packing was complete we drove behind PC Mathieson to his home nearby, where he had offered to put us up for the night.

Figure 7.3 The Liddell collection, still in police wrapping, at Fort Augustus Police Station. (© CSG CIC Glasgow Museums Collection)

Figure 7.4 Loading the Liddell collection into the GM van. (© CSG CIC Glasgow Museums Collection)

In the morning we headed back to GMRC. The boxes were removed from the van and taken straight to the freezer, where they were kept for a fortnight, an essential step for any new natural history collection – along with other GM accessions containing organic material – because the specimens could be carrying unwelcome guests such as moth larva which are killed by deep freezing.[241] With egg collections, it is not only the eggs that need to be so treated; the material upon which they rest in cabinets, and the cabinets themselves, may also be harbouring organisms. For example, when being decanted from temporary storage into GMRC in 2009, it was found that the wadding holding the eggs in the Cross collection's main cabinet, consisting of 'wood wool' and some sphagnum moss, was infested with moth (freezing was not standard procedure before GMRC was built).[242] The whole cabinet and its contents therefore had to be frozen, and Richard then took the opportunity to cross-reference the eggs with Cross's data catalogue and to re-label each clutch. On coming out of the freezer, egg collections are moved to Pod 6, where they are unpacked in order to be entered into the collections. In the case of the Liddell collection (Figure 7.5), each individual container had been placed in a police evidence bag, each with a label, which had to be cut open to access the contents. An unexpected hazard of unpacking presented itself when we cut open one bag and opened the container inside to be hit by the foul stench of an addled egg. This experience, not one I am keen to repeat, was a visceral reminder of the organic nature of eggs.

Space has to be found at GMRC for donated collections. Smaller donations are generally entered directly into the taxonomically-ordered main collection, or put along with other miscellaneous collections at the right-hand end of the row of cabinets. If eggs are decanted into the main collection, each egg or clutch is usually placed in a separate box, with cardboard sides and a glass top.[243] Data may be kept on an accompanying piece of paper, and/or via a 'set mark' on at least one of the eggs linking back to data elsewhere (as discussed in Chapter 5), in object files (kept in the GM archives) or electronic databases. Inorganic material is preferable for the wadding surrounding the eggs, given the potential for pests as discussed above.

For the Liddell collection, Richard had managed to eke out four adjacent empty quarter-cabinets, into which we placed the assorted containers with their eggs still inside. To date, they have not been unpacked further. From a scientific point of view, this represents

[241] Some specimens can languish in the freezer for a long time: up to 27 years, in the case of one bird.
[242] Museum staff refer to 'moth' in the collective rather than 'moths'.
[243] See Chapter 2 for an explanation of the 'main collection' at GMRC.

unfinished business because it makes sense that eggs should be kept along with others of the same taxonomic kind. On the other hand, from a cultural, historical perspective, the containers are of interest as well as the eggs. It is a significant part of the story of the Liddell eggs that they were kept in all manner of different boxes, and separating the eggs from their containers would arguably efface the recent history of the collection, even if the containers were not thrown away. Seeing eggs kept in a mishmash of chocolate, drink and cigar boxes, and even a few egg cartons, as well as bespoke cabinet drawers, evokes the furtive and haphazard manner in which the collection was amassed, speaking to concerns about how the home-'laboratory' could be organised (as covered in Chapter 5).

Figure 7.5 Richard putting the Liddell collection into the cabinets in Pod 6 at GMRC. (© CSG CIC Glasgow Museums Collection)

Some of the other large collections, such as Cross, Myatt and Crowther, are still in their original cabinets, partly because Richard has simply not had the time to decant them into the main collection. Donors of individual collections may prefer to have their collections

kept separate and intact, as they may see their own collection as uniquely significant.[244] There are also aesthetic reasons for keeping intact more orderly cabinet collections, such as Crowther and Cross, as they are beautiful ensembles of eggs and their containers. In the case of the Crowther collection, where there is no accompanying data, there would be little to be gained from breaking it up, as the scientific value of the eggs is limited. In other cases such as Cross where data does exist along with the eggs, these tensions between different types of value give pause. Keeping every collection in its original containers or cabinets would lead to a fragmentary overall collection, potentially creating considerable storage and collection organisation problems. In the Natural History Museum, for comparison, the policy is almost always to decant donated collections into the main collection. EP Chance's has been kept intact as a good example of a twentieth-century cabinet collection, but is the exception rather than the rule. It was also a stipulation of donation in 1947, but it is unlikely that such demands would or could be accommodated today.

As well as being physically inducted into the collections, new acquisitions go through a series of administrative procedures. Since 1985 each object or collection of objects must be given a 'day-book number' almost as soon as it enters the museum, assigned and noted down in a 'day-book for accessions' along with details which include when and from whom it was received, method of acquisition, a brief description, and initial action taken (such as where it has been placed). Broadly comparable procedures existed before 1985, but they have varied throughout the history of GM, and even during a particular period they have often been inconsistently applied. The level of detail given in these records hence varies; for some acquisitions, each item has been lovingly described, and even sketched in the case of one ceramics collection, whereas for others a cursory account has been given. Terse descriptions are common for natural history acquisitions, with hundreds or even thousands of specimens summarised in one line, such as 'Eggs from the neighbourhood of Brechin', 'Nests & eggs' or even just 'Natural history specimens'. In general, the larger the numbers of items acquired, the less likely they are to be listed in detail (Figure 7.6).

[244] From the field of *objets d'art* rather than eggs, GM has a large-scale example of a collector wanting to keep his collection intact in the form of the Burrell Collection, an entire museum devoted to one person's collection.

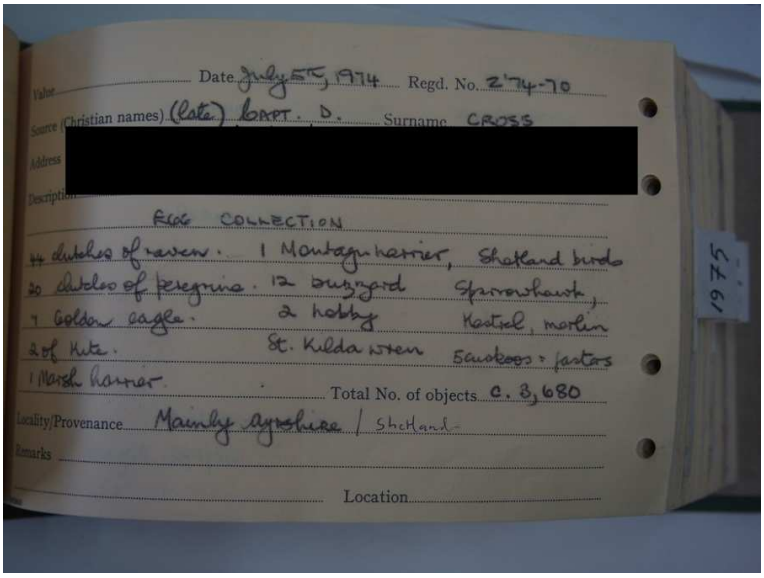


Figure 7.6 Acquisition record for the Cross collection.
(© CSG CIC Glasgow Museums Collection)

At a later date, a decision needs to be made as to whether to add an acquisition to GM's Permanent Collection, and objects that are accepted should be formally accessioned, allocated an accession number and catalogued. [245] I had brief experiences of cataloguing two types of collection, first spending an afternoon under the guidance of Isobel McDonald, Curator of Social History, entering information for some design pieces created for the 2014 Commonwealth Games held in Glasgow, including commemorative special edition Tunnock's Teacakes and a miniature gold-plated tenement block. Later, I catalogued a few of the eggs from the Liddell collection. The principles were the same in both cases, although the exact data fields were slightly different. For birds' eggs, each clutch requires the common and scientific name for the species; if available, the place and date collected, and by whom; a description (e.g. number of eggs in the clutch, plus details of any set marks); whether in the permanent collection or on loan; exact location at GM; date accessioned; and a unique identification number. Entering this information is a laborious process, and it can be difficult to maintain consistency from one record to the next in a single afternoon, and even more so if returning to the task at a later date. At some point this data also needs to be transferred to the GM-wide online catalogue, MIMSY. Before the introduction of computers at GM, paper sheets were used for cataloguing, many of which have not yet been transcribed into electronic format. Different cataloguing systems tend to vary in terms of their versatility. I was using Excel spreadsheets, where data fields can be added or adjusted fairly easily. Other cataloguing systems can be less

[245] In theory, such decisions are made at the monthly Collections Meetings and recommended to the Head of Museums for approval. In practice, authority has been delegated to Richard to decide on most natural history acquisitions and report back at Collections Meetings.

flexible, and are often set up with artworks and artefacts in mind, in which case the layout and data categories might be less appropriate for natural history specimens.

Museum storage, accessioning and cataloguing add further layers of physical inscriptions to those already associated with eggs by their original collectors, and which may have already been added to by other collectors through whose hands they may have passed. These inscriptions further embed birds' eggs as items amenable to scientific analysis. In addition, by being in close physical proximity with many more eggs than in an individual's collection, their physical properties are more readily compared and contrasted with those of other specimens. Thus by entering museums, birds' eggs become further positioned as scientific inscriptions as understood by Latour (1987; 1999), potentially contributing to the spread of scientific knowledge. The material of the world is thereby transformed into knowledge about the world. Through these processes, eggs in museums are increasingly intertwined with institutional as well as individual human histories, further becoming 'museum nature and material culture entangled' (Alberti 2008: 73). Some more specific examples of how birds' eggs are used for scientific research, in particular those in the GM collections, will now be considered.

Uses of egg collections for research and inspiration

Once in the GM collections, birds' eggs mostly have a quiet existence. There are, however, a number of ways in which they can be used, as well as for display. They can be studied for scientific research of various kinds, requiring different types of data with some types of analysis requiring the destruction of at least part of an egg, whereas others may simply require measurements and leave the eggs intact. The membrane inside the egg, which contains DNA, can also prove very useful for many types of analysis. The most heavily used egg collections in the UK are those held at the Natural History Museum in Tring, where Douglas Russell (Senior Curator, Birds, specialising in nests and eggs) estimates that around 20-30 researchers use the collection each year. Their policy is generally to avoid carrying out destructive analysis on eggs with good data, but potentially to allow it on specimens with only partial data. Specimens with little or no data are candidates for destruction, unless they are of obvious cultural interest such as eggs collected by a well-

known scientist.[246]

Birds' eggs now in the GM collections were used to provide data for the classic paper by Ratcliffe (1967) on the 'Decrease in eggshell weight in certain birds of prey', perhaps the most well-known scientific study involving birds' eggs. By analysing eggs from a number of different collections, Ratcliffe established that average shell thicknesses had markedly reduced since 1950, since around which time chemicals such as DDT had been heavily used as pesticides. Later studies confirmed the link (e.g. Ratcliffe 1970) and DDT was eventually banned in the UK and most other countries. Ratcliffe's study included analysis of eggs from Cross's collection, before they were donated to GM.[247] A more recent use of the GM collections has been by Sjurdur Hammer, a zoology student who completed his PhD at the University of Glasgow in 2016 (Hammer 2016). His research was based on analysing variations in the sizes of great skua eggs at different times and between field sites in Scotland, the Faroes and Iceland, and included analysis of eggs held by GM, other British museums, and those in some other countries. Nina O'Hanlon, another Glasgow PhD student, has also been carried out research on birds' eggs (O'Hanlon 2016). Most of her research into colour variation in herring gull eggs was carried out at field sites in south-western Scotland, but she also studied some museum eggs for comparison.

R.J. Connor is a former egg collector who for many years has been investigating the impact of egg-collecting on wild populations of birds. He writes:

> Since November 2000, I have been carrying out an investigation into the effect of egg collecting on 25 species much targeted by egg collectors in Great Britain and Ireland during the period 1800-2000, with the object of making an impartial evaluation of the impact, if any, on wild populations (Connor, private correspondence).

In pursuing this research, which is ongoing, Connor has corresponded or visited around 200 museums and other institutions with egg collections in the UK and Ireland including GM, and over 75 such institutions in Europe and the wider world, collecting data on approximately 15,000 clutches. Information gleaned in the course of his research has been used by other researchers, including Cole (2006). In this type of research the data accompanying the eggs, rather than the eggs as physical objects, is of central importance.

[246] If researchers at GM want to carry out destructive analysis, they need to make a formal Research and Analysis Request. These are considered at the monthly Collections Meeting, and obviously need a strong justification, along with a method statement and statements of support from curatorial and conservation teams.

[247] Ratcliffe chose the specialist oological publishers Peregrine Books to produce his autobiography (2000).

These types of scientific analysis have one thing in common: they require egg collections and their accompanying data. With eggs no longer being collected in any numbers, the potential for research on eggs laid over the past few decades (in the UK, at least) is severely limited. Researchers who want to obtain data on the contemporary situation might be able to obtain a licence to collect eggs, but this approach would not allow them to plug the gap that now exists in the historical record. Eggshell thinning caused by pesticide use arguably had a more deleterious effect on raptor populations than did egg-collecting itself, and Ratcliffe could only carry out his analysis because historical egg collections existed to provide comparative material. Activities such as egg-collecting, which purportedly damage bird populations, can therefore also have an indirect hand in their conservation.

Of course, egg collections are not just a potential resource for scientists. Their great beauty and fascination can make them a magnet for (other types of) creative use. Keene (2005: 181) reports a conversation with a natural history museum director who mentioned that '[i]n his experience, about half the requests to access the collections were for artistic purposes'. For example, artist Andrea Roe has visited the National Museums of Scotland collections a number of times in pursing ongoing work using birds' eggs as an inspiration.[248] At GM, an Interior Design student at Glasgow College of Art visited the collections in 2014 for a project designing a hypothetical bespoke facility for the egg collections. In general, though, the GM natural history collections, including the birds' eggs, are under-used for creative purposes.

Egg collections also have great cultural value, as material records of cultures of nature that were prevalent in past eras, in which capacity they are under-researched. This PhD project is an attempt to begin rectifying this situation by concentrating on the egg collections held by one particular museum institution, GM, and linking them to research on the wider social and cultural contexts of British egg-collecting. Although the GM collections do not contain a large amount of accompanying archival data, they have provided rich information about the practices in which collectors engaged, and the places that they visited for collecting purposes. Large stores of archival material sit in other museum stores, such as those of the National Museums of Scotland and the Natural History Museum, providing huge scope for further research.

[248] An example can be found at http://www.andrea-roe.com/page20.htm (accessed on 9 April 2016).

Most of the research on egg collections is carried out by external visitors to museums with specific questions in mind, rather by than curators, who generally do not have the time (or often the expertise) available. Access and security are therefore important issues.[249] While the GM collections are available for any member of the public to consult, visitors to GMRC must have a member of staff present when viewing objects in the Research Room, and two staff members must accompany visitors to the storage pods (as mentioned briefly in Chapter 3). Restrictions are particularly tight at the Natural History Museum, where prospective visitors to the Bird Group at Tring need letters of support and their passport or driver's licence as proof of identity. This level of security was introduced after a number of incidents where visitors stole items from the collections. For example, Mervyn Shorthouse was a regular visitor to the museum at Tring over a number of years, where curators eventually noticed that clutches were going missing. In 1979 police followed him from the museum, set up a roadblock to intercept him, and then at the police station:

> … the officers were delighted to find their prisoner with "clutches" of eggs in his possession. Apart from those concealed in his jacket, overcoat and car, the officers noticed his peculiar gait and discovered that beneath his trousers he was wearing a pair of ladies' tights containing a large number of eggs … (Pickard 1981: 279-280)

Shorthouse had stolen 548 eggs that day, and at his home police found many other eggs from the museum, with further investigation revealing that still more had been sold on to other collectors. He received a two-year prison sentence. More recently, Edwin Rist, a music student, gained access to the bird skin collection after pretending to be a photographer and soon after broke into the museum to steal 299 skins. He sold many of them via eBay and other outlets, and only some of the specimens were recovered by police. He received a six-figure fine and a suspended prison sentence (BBC News 2010, 2011).

Giving researchers access also presents other practical challenges. As GMRC visitors are not allowed into the storage pods or the Research Room on their own, a staff member needs to be available to accompany them and retrieve items from storage, which adds to pressure on staff diaries. Another potential pitfall of allowing access involving physical contact with eggs is that, given the fragility of eggshells, handling by researchers may lead to breakage. At GM such handling is generally considered a risk worth taking for eggs that are not thought particularly rare or valuable. Specialist researchers are also likely to have

[249] In terms of other natural history specimens, rhinoceros horns are a particular concern, with some highly publicised thefts at other museums (e.g. Walker 2016). A rhinoceros head at Kelvingrove has been taken off display for security reasons, but two more remain in the public galleries.

previous experience of handling specimens, which reduces the likelihood of breakage, while training in handling museum objects is available from GM staff, if deemed necessary. Of course, museum staff may themselves also accidently damage specimens, but this does not happen often.

Eggs on display

Along with research, display is another central function of museums, as reflected in the split between display and research collections that opened up in Victorian natural history museums (Forgan 1994; Yanni 1999). The vast majority of museum holdings at GM and other institutions are not on display, and indeed many items are never put on display. The figure varies across different categories of object, but overall GM estimate that 95-99% of their collections are not on display at any given time. For the egg collections, the proportion that is not displayed is particularly high, approximately 99.9%: at the start of this PhD project, around 30 eggs were on public display, whereas 30,000 were estimated to be held at GMRC.

The boundary between storage and display is, as Swinney (2011) notes, not necessarily always clear-cut. Facilities such as GMRC, purpose-built as a publicly accessible storage facility, blur the lines between storage and public display. Even so, at GMRC visitors still need to book in advance, and are not free to wander at will; any attempt to do so would quickly come to an end anyway, given that most internal doors need a staff pass card to open them. On tours of GMRC given by museum staff, the egg collections are rarely shown, chiefly because Pod 6 is not considered to be in an orderly enough state for regular visits and also given the security risk. The contrast between display and storage thus arguably remains stronger with eggs than with some other types of collection, weighted firmly towards storage rather than display.

Display brings its own set of questions, difficulties and advantages. Within GM, natural history collections have mainly been displayed at Kelvingrove Museum, and displays in the museum's West Court have included a few birds' eggs. Until they were recently removed as part of a major redisplay, to be discussed later, a few particularly large and small eggs were part of a 'Natural Record Breakers' display, including those of the bee hummingbird and ostrich, and the goldcrest and mute swan (respectively the smallest and

largest eggs of living species in the world, and in Britain, respectively), along with a humble hen's egg (for comparison with the ostrich egg). In the museum's Environmental Discovery Centre is a display case with the eggs of various gull species to show their variety, and the nearby 'Creatures of the Past' gallery has a cast of a great auk egg, along with a mounted specimen, of this extinct bird.[250] Elsewhere, in the museum's Cultural Survival Gallery, a display on the island group of St Kilda includes guillemot, fulmar and wren eggs (Figure 7.7).[251,252]

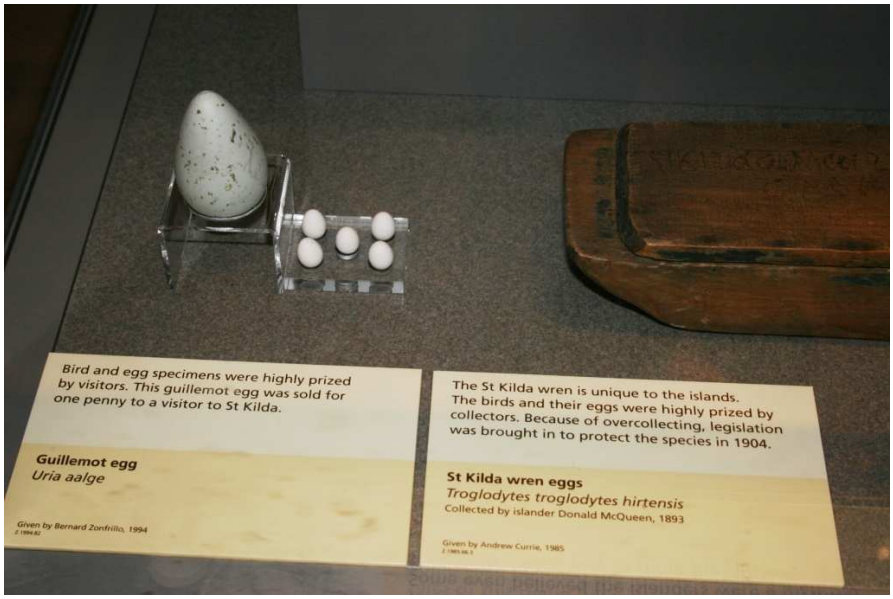


Figure 7.7 Example of GM display in Kelvingrove Museum's Cultural Survival Gallery. The 1904 legislation mentioned here applied specifically to St Kilda (Sheail 1976: 29).
(© CSG CIC Glasgow Museums Collection)

There are a number of features that these displays have, or had, in common. In each the eggs are or were, broadly speaking, on display as part of a wider context, such as St Kilda, gull varieties or extinct species, rather than being the focus of specific attention as eggs, of intrinsic interest in themselves. The display of record-breakers was perhaps the one that comes closest to showing them as objects of specific interest, but even in this case their status as extreme examples was the main focus. Another common feature is that only a few eggs were on display in each case. Showing a limited number of objects, with a concise yet instructive label, has mainly been the preferred approach of GM since the 1990s. This

[250] See Chapter 5 for a discussion of great auk eggs. Close to the gull eggs there are also two large plastic eggs, created for the 2015 exhibition 'Hatching the Past: Dinosaur Eggs and Babies'. They are 'interactives' designed to be just the right size for children to sit on and crawl inside.
[251] The St Kilda wren is a subspecies endemic to the islands, although vastly outnumbered by sea birds, which the islanders relied on for subsistence and trade with the outside world.
[252] MacDonald (2001) for a discussion of historical representations of this much-mythologised island group, asserting the islanders' autonomy and agency in the face of accounts which depicted St Kilda as a barely-real place at the margins of the civilised world

approach could perhaps be summarised as ‘less is more’, compared with earlier displays such as the old Kelvingrove Bird Room that were much denser in terms of the number of objects contained (Figure 7.8). Many other British museums have adopted a broadly similar approach to display, as part of a broader museological shift away from cluttered taxonomic displays to a ‘story’ approach with a few selected objects encapsulating an overall message. Elsewhere, however, a few old-fashioned displays survive, such as those at the National Museum in Dublin and the room showing the egg and skin collection of Thomas Nelson at the Dorman Museum, Middlesborough (Figure 7.9). In contrast to the minimalist contemporary trend in displays, an apt description of this older approach could be ‘less is a bore’ (Venturi 1977: 17).[253]

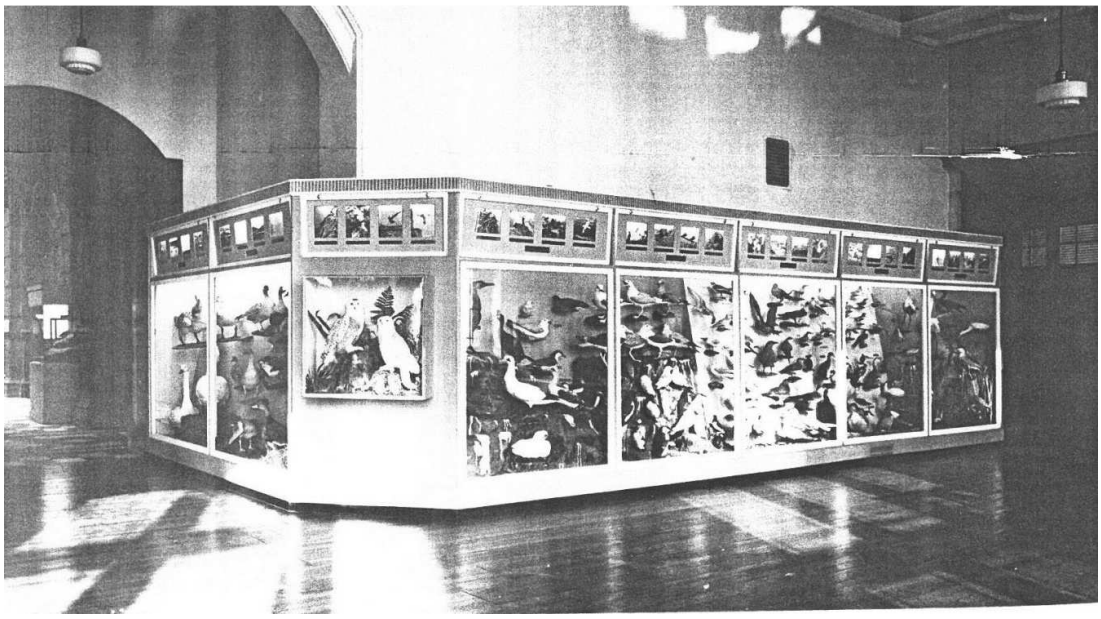


Figure 7.8 The old Bird Gallery at Kelvingrove Museum. The photograph is probably from the 1950s but the gallery retained the same layout until the late 1980s.
(© CSG CIC Glasgow Museums Collection)

It is understandable that museums have moved away from stuffing displays full of as many different specimens as possible. Most visitors want to have their interest piqued, or to be entertained, rather than to learn about the finer points of bird taxonomy through a more comprehensive display. Also, museums often have large numbers of different types of holdings, even within a subject area, and showing more of one type is likely to mean less room to show something else. In any event, a more comprehensive display would still have to be selective: even if space was available to show the eggs of each British breeding species, choices would have to be made about what constituted a representative clutch for

[253] The architect and theorist Venturi coined the phrase as a riposte to the austere modernist ‘International Style’ summarised by one of its leading lights, Mies van der Rohe, as ‘less is more’ (although the term dates back at least to Robert Browning).

each, and the extent to which variation within species (variety clutches) should be shown. In the case of birds' eggs, a further argument for showing smaller numbers of specimens is that their colouring tends to fade when exposed to light for prolonged periods, so exhibiting just a few helps to preserve more of the collection. If a larger number were shown but were removed from display more quickly, or rotated with other eggs to preserve the colouring, this could also cause difficulties by increasing the likelihood of breakage, as well as putting pressure on museum staffing.

While acknowledging these various reasons for trends towards having contextual displays of small numbers of objects, it must be admitted that there is something compelling about denser displays. If a room is packed to the rafters with a large variety of specimens of the same broad type, visiting it can engender a sense of wonder at the fecundity and subtle variety of the natural world. It also allows visitors to decide which eggs (or other objects) most capture their imagination or delight their senses, to a much greater extent than a sparse display where the curators have effectively made these decisions about the most attractive or interesting eggs on behalf of visitors.

Figure 7.9 An example of an old-fashioned, densely-packed museum display still extant: the Nelson Room at the Dorman Museum, Middlesbrough. Nelson bequeathed his collection in 1914.
(Photo http://visitmiddlesbrough.com/venues/the-nelson-room-dorman-museum, accessed on 3rd May 2016)

Virtual display

An alternative to the physical display of objects is provided by virtual display, an approach being used increasingly often by GM and other museums. Currently the main platform for exhibiting GM specimens virtually is the Collections Navigator, a searchable online database of selected items from the collections currently numbering around 3,000 in total. Visitors to the website can drill down through categories such as natural history, zoology and birds to specific bird families or species, and finally to individual specimens. An example is a clutch of nightjar eggs collected by Hay, for which the Collections Navigator entry (Figure 7.10) includes a photograph; museum-related information such as current location and accession number; and some descriptive information about nightjars as a species, where they lay their eggs, and where, when and by whom these eggs were collected.[254] A number of other egg specimens are displayed elsewhere on the database, and more are planned for later in the year when MWeb, a new online platform for the museum collections, goes live.

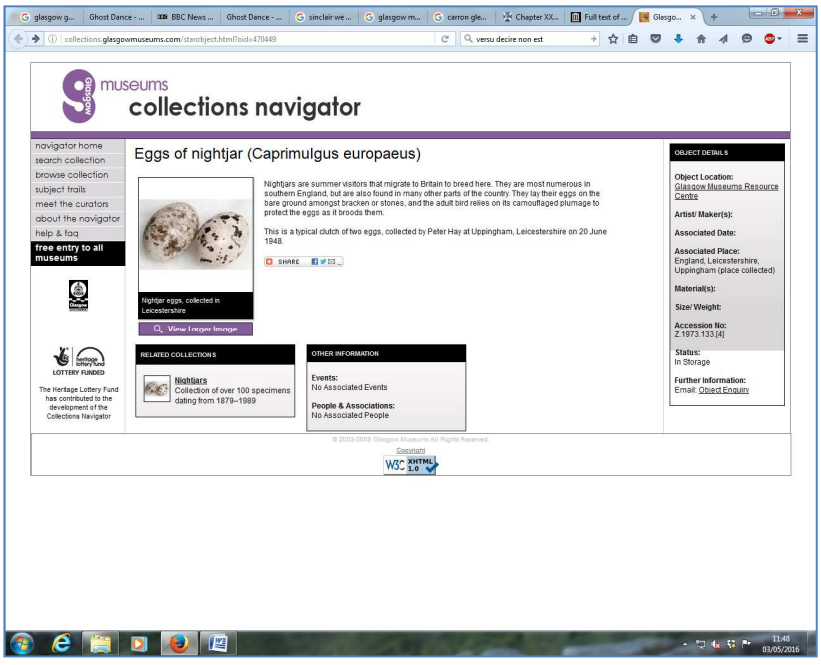


Figure 7.10 Collections Navigator page showing nightjar eggs from the Hay collection. (© CSG CIC Glasgow Museums Collection)

Another avenue for exhibiting or promoting collections online is via social media, which can also be useful for publicising events relating to particular collections. The Natural History Museum Oology Twitter feed (@NHM_Oology) is exemplary in this respect. It is

[254] The web page is at: http://collections.glasgowmuseums.com/starobject.html?oid=470449 (accessed on 28 April 2016).

updated most weekdays, usually showing an egg or clutch from the collections along with a very brief description and links to other relevant Twitter accounts, topics or websites, providing a quick means whereby current research and findings can be publicised. There is also a "hashtag", #oology, which allows any Twitter user to categorise a message or search for other messages including that tag.[255]

Virtual display of collections via online databases, social media or other conduits, possesses a number of advantages. It allows more objects from museum collections to be shown than might be feasible for physical display alone, permitting people from around the world to see the objects, giving access that is not restricted to visitors able to visit the museum premises. Putting information online can also help to promote museums and collections to people who might not otherwise easily find out about them (e.g. if they arrive at a museum website via a search engine). Physical and virtual display can be linked: for example, GM has experimented with using mobile phone QR codes to provide additional information, beyond the limited amount permitted on labels in the gallery, about objects on display at Kelvingrove and other museums.[256] It is perhaps inevitable that the virtual display of collections, in various different guises, will continue to expand.

At the same time, however, it is important not to see virtual display as a panacea, since it has various limitations. Setting up an online database entry can be time-consuming: a clear photograph needs to be taken (not always straightforward for birds' eggs) and accompanying information must be written with the content then uploaded. Online formats and platforms can look dated very quickly; so, even if the content of the information for a particular object does not need to be updated regularly, the 'feel' of the whole database needs to be monitored. Also, particular types of online platform can become obsolete, including social media applications that may be ubiquitous for a while, but could easily fall out of fashion.[257]

Another limitation of virtual display is that it cannot yet replicate the experience of being in physical proximity to museum collections (Stafford 1994). Until virtual reality makes greater inroads into everyday life, virtual collections are mainly only experienced via

[255] The "#oology" hashtag has been used to publicise the egg display at GMRC, discussed below.
[256] A QR (Quick Response) code is a bar code that can be read by a phone's computer, linking to information stored on a website.
[257] This may be less of a potential problem when the purpose is to provide fast-moving day-to-day updates, as with Twitter feeds, rather than to act as a longer-lasting database for collections.

photographs, with little sense of the three-dimensional qualities of objects on display.[258] Colours and textures as subtle as those found on birds' eggs are almost impossible to convey accurately in pictures. The scale and dimensions of different eggs are also difficult to reproduce, especially as the proliferation of different-sized computer and phone screen renders a life-size online reproduction impractical. Even more tellingly, being close to real egg(shell)s arguably creates a more profound reminder of their status as objects of animal origin, once containing a growing life-form, than merely seeing images on a screen. Davies (2000) makes a similar point about encountering animals in a real zoo compared with a virtual zoo, and while eggs cannot stare back as can live animals, their 'corporeal presence' (*ibid.*: 260) does carry an affective, ethical charge largely missing in the virtual world. Virtual display has other limitations. As well as physically encountering objects, there is arguably something about being in the ambient surroundings of a museum that can enhance the visitor's experience, and perhaps their concentration, in contrast to flicking though screens on the sofa at home or in a crowded train. Furthermore, visitor research by GM shows that the majority of visitors come in family or other social groups, suggesting that a museum visit is often a shared social experience, which would be difficult to achieve virtually. Given these limitations, virtual display is best treated as a very useful complement to physical display rather than a wholesale replacement.

A new birds' egg display at GM

From the outset of this project one of the aims was to contribute to a new egg display at GM, preferably taking birds' eggs and egg-collecting as its main focus, rather than as an adjunct to another topic. One of the main difficulties in achieving this aim was finding a suitable site. A potential opportunity arose with the redisplay of the West Court at Kelvingrove Museum, and, through Richard and Helen, I was potentially to be involved in this initiative. In late-2015, the Spitfire aeroplane that is suspended over the display cases (Figure 7.11) needed to be taken down and checked, to comply with regulations decreeing that such a check must be done at least once every ten years.[259] For a number of reasons, however, it was not considered viable to include a dedicated egg display in this redevelopment, which is taking place over two phases, the first having opened in April

[258] There has been some experimentation with '360 video' in an archaeology display at Kelvingrove. The aim was to bring some small, fragile and unassuming objects to life by filming them on a turntable so visitors could see them more closely and from different angles.
[259] For future checks, the time limit may be reduced, which would add further pressure on museum resources and timetables.

2016 and the second planned for late 2016. The new displays are based around different biogeographical 'ecozones' of the world, each represented by two topics, some on specific animal or plant types such as the albatross (in the Antarctic ecozone), and others more general in scope, such as surviving in the cold (also in the Antarctic). Although the latter display contains penguin egg, and a kiwi egg will be included in Phase 2, a more display dedicated to birds' eggs would not fit particularly well in this layout.[260] In the second phase there will also be a section on conservation issues such as pollution, invasive species and climate change, focusing on Glasgow. While a birds' egg display could fit here as an example of threats to wildlife, I was keen not to make the illegality and immorality of egg-collecting the central focus of an egg display. Rather than focusing primarily on these negative aspects, I wanted to celebrate the beauty and fascination of birds' eggs, albeit without condoning collecting: to bring them to life, while acknowledging their difficult status for museums as discussed earlier in this chapter.

Figure 7.11 The West Court at Kelvingrove Museum before the 2016 redevelopment. (© CSG CIC Glasgow Museums Collection)

Notwithstanding conceptual issues of the fit with other displays, more practical matters also militated against my involvement in the West Court redisplay. Any large gallery redevelopment involves many different museum staff and other interested parties. Coordinating all these people and groups is logistically very difficult, and trying to eke out

[260] The kiwi egg is planned as part of a display on flightless birds. Kiwi eggs are very large relative to the body size of the parent bird, up to almost a quarter (Walters 1994).

a display, even if small compared to the whole project, would just be adding to these difficulties. With the West Court redisplay discounted as an opportunity for a dedicated egg display, it was looking unlikely that an egg-related display would be possible before the end of the PhD studentship. This would not have taken away from the main value of the project, especially the detailed research into the GM egg collections and the wider context of British egg-collecting, which would still be of use in any future displays (whether physical or virtual) and for educational use by GM. At the same time, it would have been disappointing from a personal perspective as a display would have been a satisfying, tangible way to wrap up the project and to share some of the research findings with a wider audience. When, at the eleventh hour, Helen and Richard identified another potential space for display, I jumped at the chance.

The display space in question was a case in the foyer at GMRC. A case housing a long-term display was decommissioned and replaced in 2015 by a case programmed by the Open Museum. The Open Museum started in 1990 as a project with the aim of taking the GM collections beyond the walls of the museum venues and into communities (Addington *et al.* 2010), and it is now a section of GM, based at GMRC. The display case provides a location for short-term displays within GM; previous exhibits have included a 'Butterflies Book Sculpture' made of old books, created by an anonymous artist who also left a number of similar pieces at various galleries, libraries and other cultural spaces in Edinburgh in 2011. A mounted golden eagle was also shown in the case, with a label concentrating on the species' natural history. The most recent exhibit was a Maori canoe prow installed in late December 2015. Exhibits are usually in place for a minimum of three months, so the display case was potentially available for another display from late March 2016. The foyer display would allow an opportunity to show eggs as the centre of attention, rather than merely as an adjunct to a display chiefly about something else. John Yates, Assistant Museum Manger for the GMRC venue, was positive about our idea, as he thought that the egg collection was under-appreciated and under-used. Chris Jamieson, Open Museum Manager, was also happy for the display to go ahead. We would not have any dedicated budget available for the display, but the Open Museum technical staff said that they would be able to create a display within existing budgets, if we kept it reasonably simple.

Having been given informal approval, we needed to decide what to exhibit. Richard and I agreed that it would be appropriate to show some items from the Liddell collection, which forms a microcosm of both the history and the contemporary status of egg-collecting, and

is the part of the GM collections with which I have been most actively involved. Within the Liddell collections, there were many possible eggs to show, and various different factors to consider. Initially, we were guided by practical considerations. Since we had no specific budget allocated, and time was of the essence, we wanted to avoid showing anything that would need complicated bespoke mounts or casings to be created. Choosing eggs that were already in 'display-ready' form was therefore the most efficient course of action, and the most obvious choice was one or more of the cabinet drawers. Showing these drawers would also indicate that historically, serious collectors would keep their collections in special cabinets, as opposed to the haphazard containers housing most of the rest of the Liddell collection.

Another factor was an aesthetic one: we wanted the displayed objects to be visually attractive and distinctive. Some of the drawers contained eggs dull to view, whitish or pale, without interesting markings. Also, eggs in some drawers were unevenly arranged, with some clutches having been taken out, leaving the remainder looking unbalanced in composition. Two drawers were more promising (Figure 7.12). One contained 16 clutches: three each of snipe, killdeer, common sandpiper and ringed plover eggs, and two sets each of sparrowhawk and kestrel eggs. The clutches had a pleasing symmetry, and had patterns exhibiting diversity across species, as well as consistency within species. Another drawer contained 24 razorbill and guillemot eggs, twelve of each (birds of these species only lay one egg in a clutch). The eggs of these two species show a remarkable variety of patterning, so they were another attractive choice for the display.

Figure 7.12 Drawers of eggs from the Liddell collection.
(© CSG CIC Glasgow Museums Collection)

Alongside the drawers, we also decided to exhibit some egg-blowing tools, and the Watkins and Doncaster toolkit from the Crowther collection provided a neat vehicle to this end. In addition, the box has instructions on the inside label which an interested visitor could read to learn more about the practicalities of egg-blowing. We wanted to emphasise the practical aspects of egg-collecting, and that eggs had to be emptied before they entered a collection, a profound fact – as explored earlier in the thesis – about which many people have no awareness. We also decided to show one of the hen eggs that I had blown, with the holes visible. The tools and blown egg form a material example of the argument that natural history specimens are cultural artefacts as well as (or even instead of) being natural objects, although it was decided that this point was better left implicit given the restrictions on explanatory material, to be discussed below. In total, the display would include 93 eggs, which would approximately quadruple the number of eggs on physical display throughout the whole of GM. Having selected the items to display, we spoke to John MacInnes, Venue Technician for the Open Museum, who viewed and measured the items (Figure 7.13). He confirmed that the display was feasible, and that they could create the stands and labels required without needing additional budgets from us.

Figure 7.13 Venue Technician John MacInnes measuring the dimensions of the egg cabinet drawers proposed for display, three times each to minimise the risk of mistakes.
(© CSG CIC Glasgow Museums Collection)

Most new displays at GM must go through a formal project planning process known as 'MoRPHE'.[261] It was agreed that this process would be unnecessary for our display, given

[261] MoRPHE stands for 'Management of Research Projects in the Historic Environment', a set of project-management guidelines provided by Historic England (2015).

its size and lack of dedicated budget, but we carried out a simplified version for the sake of good practice, which allowed me to gain an understanding of the project planning process. The first stage was to write a Concept Proposal, setting out briefly the idea for the display and any accompanying activities, timescales, the GM collection(s) to be deployed, and the expected outcomes, cross-referencing with the Glasgow Life Strategic Objectives towards which the display would contribute. This proposal was agreed informally within GMRC, and then Richard, Helen and I met to write a longer Project Plan. This document fleshed out the earlier document, including proposals for target audiences, any associated marketing, evaluation techniques to be used, and a risk register of possible impediments to successful delivery of the project. Some of these sections can feel like overkill for a single display case, but thinking about them helped to focus on what *exactly* we were hoping to achieve. Sections on the project team and task list (with timescales) were particularly useful, showing just how many people from different teams are involved even for an ostensibly small project, although some of them might only need to be consulted very briefly. One essential item of paperwork was an Object Movement Form, which Richard sent to the Collections Management team, as the whereabouts of all objects at GM needs to be known at all times. Installation was planned in time for Easter 2016, allowing the egg theme to have extra resonance with visitors. The 'opening' date was set a week before Good Friday, on 18 March 2016.[262]

The next step was to decide on the key message for the display and then to draft suitable interpretive panels and object labels. Labels can be crucially important for a display, providing visitors with information and interpretation, although the style and extent of labelling can vary considerably across different museums, and may also depend on factors such as the perceived level of knowledge of the audience and the context within which eggs are displayed. While we wanted the objects to take centre-stage, not wanting to overburden them with too many layers of interpretation, we did envisage some written material to help bring them to life. GM text panels are allowed a maximum of around 100 words, except in exceptional circumstances, but fortunately two panels were permitted for our display. In addition each object (or group of objects) has its own label, containing factual information about what the object is, what it is made of, where it came from and the GM catalogue number, in addition to which a maximum of 30 words is allowed for further explanation. Thus, I needed to distil three years of research into 290 words, so the need to

[262] For a project going through the full MoRPHE process, the stages are Concept Proposal, Project Proposal, Project Plan and Interpretation Plan, which must be approved at formal meetings, so that staff and resources can be allocated from all relevant departments.

be pithy had rarely pressed so urgently. The requirement to select a few key ideas from a larger topic is one of the challenges or difficulties of museum labelling, but it is also a worthwhile exercise in thinking about audience and message, and being concise.

I spoke to Harry Dunlop, Learning and Access Curator, to understand more about the GM philosophy on labelling, and to hear some practical tips. He stressed the need to think about the target audience, which we had initially thought of as families *and* special interest groups such as the Glasgow Natural History Society and the Scottish Ornithologists' Club. Harry pointed out that these two groups were quite disparate, and so it would be difficult to accommodate the interests of both in our labels. Natural history specialists would be likely to bring their own knowledge to the displays, and further details could be provided to them if they asked, so it made more sense to write labels that families and general visitors could understand, rather than providing information aimed at people already relatively expert.[263] Choosing the main audience can also affect practical requirements for the display, such as the height: there is no point in putting everything six feet off the ground if the main target audience is children. Harry also impressed upon me the need to have a limited number of key messages as part of an overarching theme – the single 'headline' we wanted visitors to take away.

With this advice in mind I drafted some labels, incorporating suggestions from my supervisors, with an overarching theme of 'the fascination of birds' eggs'. A week of email queries and discussion between Harry, Richard and Helen ensued, resulting in a few minor changes (such as 'pastime' becoming 'hobby' and word order adjustments to make some sentences read more smoothly). An updated version was then sent to Susan Pacitti, Publishing, Commissioning and Licensing Manager in the GM editorial team, who has final editorial oversight. Susan made a few further small amendments, resulting in the following final wording, to which I have added some explanatory notes in italics.

[263] While making labels that could be understood by the casual visitor, however, I still wanted them to be thought-provoking, noting Green's (2011: 43) criticism that '[n]atural history displays often have "family-friendly" running through them like a dumbed-down [stick of] Blackpool rock'.

Panel 1

The Fascination of Birds' Eggs

Birds' eggs are objects of great beauty and fascination. Throughout history they've captured our imagination. [*Start on a positive note with the allure of birds' eggs. This is also our overall theme.]*

Egg collecting, also known as oology, used to be a popular hobby for children and adults. Serious collectors tried to collect examples of the eggs of every British bird species, and some also travelled abroad. There were specialist magazines and societies where collectors discussed their activities and shared their enthusiasm. *[Stress the past popularity of egg-collecting, and the culture that grew up around it.]*

Glasgow Museums has a collection of over 30,000 birds' eggs, mostly stored here at Glasgow Museums Resource Centre. *[Introduce the GM collections.]*

Panel 2

From Hobby to Crime

Today it is illegal to collect or trade wild birds' eggs. Police confiscated these eggs from a collector in Inverness who was prosecuted for trading eggs over the Internet. However, most of Glasgow Museums' eggs were originally collected when oology was still legal and later donated by collectors or their relatives. *[Mention that egg-collecting is now illegal, and that is why these eggs are now at GM – but also stress that most of the eggs at GM were legally taken in a different era.]*

Museum egg collections are valuable for scientific research on topics such as bird populations and pollution levels. [*Show examples of the value of egg collections. According to Harry, information about scientific research is very popular with visitors.]*

Current research being carried out with Glasgow University is looking at the human stories of how our eggs were collected, and why egg collecting went from being a hobby to a crime. *[Mention that cultural research of egg collections is important too, as represented by this PhD project.]*

Object label 1 (snipe eggs etc.)

Collectors usually took the complete clutch – set of eggs – they found in a nest, and kept them together in their collections. *[Explain an aspect of oological practice, and why the eggs are grouped as they are.]*

Birds of prey and wader eggs *[Brief description of objects]*
Z.2014.18.29-44 *[GM identification number]*

Object label 2 (egg blowing tools)

Collectors would blow, or empty, the eggs through a hole, using these tools, and keep the empty eggshells in specially made cabinets. How do you think each tool was used?
[Another aspect of oological practice, linking together the exhibits. Questions are a useful way of piquing the visitor's interest.]

Egg-blowing tools and hen egg
DB.10777.[1] *[Number for tool box only. The hen's egg has not been accessioned and so it does not have an identification number. Officially it is not yet part of the GM collections. A suitable time to accession it could be when it comes off display.]*

Object label 3 (guillemot and razorbill eggs):

Razorbills and guillemots don't build nests. They lay a single egg with a distinctive pattern that lets the parents recognise it among many other eggs on a crowded rocky ledge.
[Brief information about egg laying behaviour and the eggs, encouraging visitors to look more closely at the eggs in the case and consider the remarkable ability of these birds to tell individual eggs apart.]

Guillemot and razorbill eggs
Z.2014.18.76-99

With this wording, we wanted to start by stressing the allure of birds' eggs, before telling visitors a little about egg-collecting as a practice, noting its previous popularity, as well as briefly introducing GM's egg collections. We felt it necessary to mention that egg-collecting is now illegal, especially as this forms the background to why the Liddell eggs have come to be in GM, but we did not seek to labour this point, or make it the overriding theme of the display. We also gave examples of the uses of museum egg collections for both scientific and cultural research, including this PhD project that gave rise to the display, while the object labels gave some very brief explanations of oological practice and an example of egg-laying behaviour. We tried to distil as much as possible into our allotted word count, without overburdening visitors with too many divergent threads: selecting messages carefully rather than trying to squeeze everything in.

This wording was sent to Trish Copson, Designer in the Open Museum team, who designed the final panels. Trish added a border of pictures to each of the two panels, one

with a guillemot and the other with a photograph of me blowing a hen egg using the tools exhibited, each along with some assorted eggs from the collections. Each panel also included a photograph of open cabinet drawers, from the Crowther and Cross collections, and the GM logo. Trish's designs therefore included some clear and attractive non-verbal information in addition to the words printed. With a dedicated budget, we could also have requested a large panel for the back of the case, but even without this addition, we still felt that we had an interesting and informative display. While Trish was putting together the labels, John MacInnes was constructing the stand, painted blue and with a slope of 45° so that the objects would be easily visible face-on. John also made a small mount upon which the egg would rest in front of the box of egg blowing tools. The stands, panels and labels contributed significantly to the success of the display. As Vergo (1989) argues, design and layout are crucial elements of successful story-telling in a display, with details such as label fonts, accompanying pictures, colour schemes and object placement all contributing to the overall messages and theme.

A few days before the planned installation date on Friday 18 March a hitch arose: the Open Museum staff were run off their feet with other projects, so the installation of the egg display would have to be postponed. This type of last-minute change to plans is not unusual at GM and other museums, with tight deadlines and teams often juggling numerous competing demands. Fortunately, a date the following week was found, so the installation could still be completed in time for Easter. On Thursday 24 March, I arrived at GMRC just before lunchtime to meet Richard and Helen, coming face-to-face with the empty display case in the foyer, recently vacated by its previous tenant, the Maori canoe prow. We found John MacInnes in his workshop and I helped him to carry the display mount through numerous double doors into the foyer. We opened the doors of the case, using temporary handles attaching by suction, and placed the mount inside, with John carefully measuring the space on each side to ensure that it sat centrally. In front of it we then placed the two information panels, again making sure that they were symmetrically placed, after wheeling them from the workshop on a trolley. Next came the turn of the drawers of eggs and the tools, each of which had to be placed on the mount. Unsurprisingly, given the potential for breakage, this was the most nerve-racking part of the installation, but it went smoothly. Trish joined us, and she and John together performed the most delicate part of the operation, placing the tools in their box and the hen egg on its

mount.[264] After a quick brush to remove any dust, we closed the display case, and I was given the task of cleaning the glass. John adjusted the position of the overhead bulbs to minimise glare and show the objects at their best, and finally the display was ready. It was a very satisfying moment.

A short photo essay on the display installation

Figure 7.14 The GMRC foyer, with the empty display case just out of shot to the right.
(Photo © CSG CIC Glasgow Museums Collection)

Figure 7.15 John MacInnes cleaning out the interior of the empty display case. Check shirts and jeans are not obligatory at GM.
(Photo © CSG CIC Glasgow Museums Collection)

[264] Unfortunately the other hen egg that I had blown was irreparably damaged when it was dropped in a dry run. Applying the rules of the British Cabinet to the GM egg cabinets, collective responsibility shall prevail in this case.

Figure 7.16 The egg drawers and (at the far end of the table) tools and hen egg, waiting to be moved from the GMRC workshop.
(Photo © CSG CIC Glasgow Museums Collection)

Figure 7.17 Moving the display mount into place while Gallery Assistant Joe O'Hara walks past.
(Photo © CSG CIC Glasgow Museums Collection)

Figure 7.18 Wheeling the eggs and tools from the workshop to the display case.
(Photo © CSG CIC Glasgow Museums Collection)

Figure 7.19 Placing one of the egg drawers onto the mount.
(Photo © CSG CIC Glasgow Museums Collection)

Figure 7.20 John carefully manoeuvring one of the egg blowing tools into place.
(Photo © CSG CIC Glasgow Museums Collection)

Figure 7.21 Cleaning the outside of the case.
(Photo © CSG CIC Glasgow Museums Collection)

Figure 7.22 The finished display.
(Photo © CSG CIC Glasgow Museums Collection)

Figure 7.23 Closer view of the display.
(Photo © CSG CIC Glasgow Museums Collection)

Conclusion: the future of egg collections

In this chapter, I have considered how egg collections are taken into museums, and how they are used once they are there, for research and display. The discussion has highlighted various aspects of difficulty that surround museum egg collections, both practical and conceptual. Museums can choose to deal with these difficulties, particularly the complex ethical history of egg-collecting, in a number of different ways, ranging from denial to hand-wringing apology. I have suggested that a more nuanced approach is to acknowledge aspects of difficulty surrounding birds' eggs, while also allowing visitors to enjoy their beauty, and find out about some aspects of their human and natural history.

Today a major source of difficulty for natural history museum collections, including birds' eggs, is the pressure caused by financial cuts. This has been a long-term trend, since at least the 1980s, when private-sector values were increasingly brought to bear on public institutions.[265] The pace of cuts has accelerated in recent years, especially for museums run by local authorities which have seen their revenues from central government slashed but not been allowed to increase local taxes to redress shortfalls. As part of Glasgow Life, a semi-autonomous organisation from Glasgow City Council, GM has escaped some of the more swingeing cuts, but budgets have still been squeezed and recruitment freezes, alongside other cost-cutting measures, have become more common. For example, until 2014 GM had a Curator of Entomology, but when she left the post was not renewed as a restructuring had reduced the number of curatorial posts. Richard now effectively has to cover the role, which reduces the amount of attention that he can pay to any individual collection, meaning that activities such as cataloguing can end up being postponed almost indefinitely. Volunteers plug some gaps temporarily, effectively acting as free labour for museums, but they can only fulfil specific, isolated roles, and do not provide a wider overview or day-to-day management of collections.

In British museums more generally for over a decade, natural history curators have been disproportionately affected by cuts, with a much greater decline in their numbers than for art or human history curators (Mulhearn 2013).[266] These cuts are occurring despite the popularity of natural history exhibits and collections with the public, and can lead to the

[265] Fortey (2008) gives some entertaining anecdotes about the advent of the new culture, and some of the idiosyncratic individuals who were more common among staff in earlier eras.
[266] Richard speculates that this may be because natural history collections usually have a lower monetary value than collections of cultural artefacts.

phenomenon of 'orphaned collections' which have nobody with relevant expertise to look after them. With the loss of curators dedicated to their care, these collections can end up being neglected, disposed of or even destroyed. Smaller and local museums have been particularly affected, prompting NatSCA, the Natural Sciences Collections Association, to produce a paper (2005) offering justifications for keeping collections, exhorting museums not to dispose of their holdings.[267] Its title made the key point: *A Matter of Life and Death*. As part of a larger institution, GM's egg collections are not under immediate threat of destruction or dispersal, but long term trends can take an inexorable toll ('death by a thousand cuts'). Cuts in museum funding are likely to continue rather than be reversed for the foreseeable future, which will affect the amount of time and attention that can be dedicated to the upkeep of any particular collection, including birds' eggs.

To end on a more positive note, at the time of writing the specialist egg display has been in place for a number of weeks. GMRC Gallery Assistant, Janice Hamilton, publicised the display on social media, and reported that it generated a high level of interest. General tours of GMRC (for example, of school groups) pass the display, so we hope that visitors will find it interesting and thought-provoking. We have left a notebook in place for visitor comments. Unfortunately, visitors can be reluctant to give their comments, and the responses can be subject to selection bias (visitors who really like or dislike the display are most likely to leave comments), but there have been a few entries in the comments book, reproduced below in Figure 7.25. Some of these comments have focused on particular aspects of the display, including the natural history of the eggs ('[h]ow amazing that Guillemots & Razorbills can identifiy their own egg from a cliff full of many others just by their markings!!') and their beauty ('[v]ery pretty eggs'). Others are more general ('fascinating eggs display'; 'very informative'), and one has highlighted resonance with the viewer's own experience ('[a]s quite a young girl my brother had an egg collection and amongst it there was the sea birds eggs'). These responses suggest the value of ensuring that while an egg display should not obscure aspects of difficulty, it should also leave room for the visitor to arrive at other responses.

Finally, Richard and I conducted a tour of the GM egg collections on 10 June 2016, to tie in with the foyer display and Glasgow Science Festival, which ran from 9-19 June. The tour was advertised in Festival literature and also via the Glasgow Natural History Society.

[267] NatSCA use the term 'natural science collections' for what are termed 'natural history collections' in this thesis.

We showed a selection of clutches from different collectors, and discussed cabinet and shoebox collections and the importance of data. The attendees also had a rare opportunity to handle some of the eggs – ostrich and guillemot (neither type particularly rare nor fragile) – and we handed round some of the Arbuthnott, Cross and Hay archival material. We also showed the main collection before moving to the Liddell cabinets, and ended up at the foyer display where I explained how different egg-blowing tools were used. Although turnout was not spectacular, the visitors were evidently interested and asked some pertinent questions. The tour felt like a suitable and satisfying way to wrap up my involvement with the GMRC egg collections.

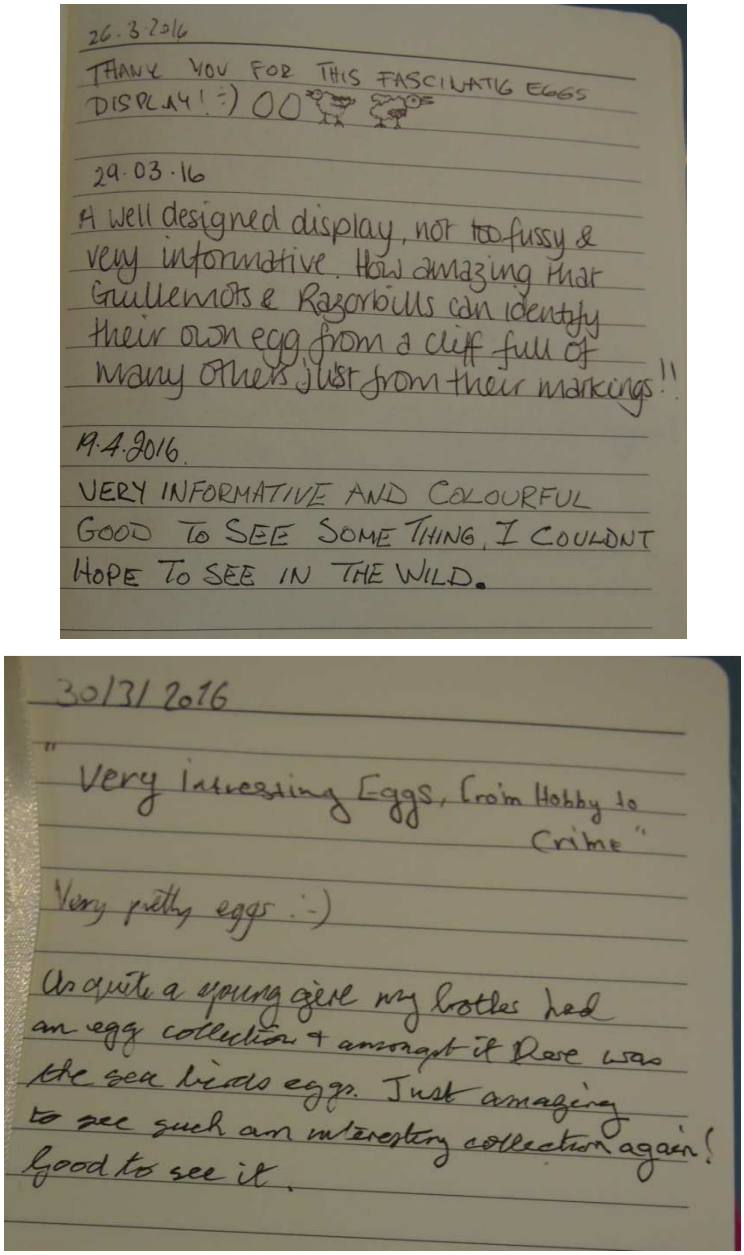


Figure 7.24 Visitors' comments about the GMRC foyer egg display. (Photo © CSG CIC Glasgow Museums Collection)

Chapter 8. Conclusion

The Liddell collection data cards

The donation of the Liddell collection was serendipitious for this project. As described in the previous chapter, travelling to Fort Augustus to take receipt of the collection was a unique experience. Later at GMRC, unwrapping the police plastic bags each egg container was encased in, to reveal all manner of contraband in boxes and cartons, was also a highly unusual form of research practice. Through my involvement in the acquisition of this collection I, and this PhD project, have become a small part of the history of the GM collections. The Liddell eggs also provided an obvious focus when the opportunity arose to exhibit some of the GM egg collections. The collection also includes another rich resource which now merits some attention, bringing to light a host of new links with the wider world of British egg-collecting discussed earlier in this thesis.

The Liddell collection includes 176 data cards or other items of data accompanying some of the 600 or so clutches in the collection, all of which were originally taken by collectors other than Liddell himself. At the trial in 2013, the judge ordered that this data be destroyed, a frustrating decision for which no rationale was provided. As discussed in earlier chapters, it is essential to have data paired up with eggs in order to realise their full scientific value, and furthermore, data cards can form an archive of their own for historical research. Fortunately, before the cards were destroyed, photocopies had been made (by Bob McGowan), which have been passed on to GM. These copies cannot fully replace the original cards which, with their own material and aesthetic qualities to accompany the eggs themselves, would have made a rich written archive. Also, some of the cards contained information on both sides (indicated by entries including ‘P.T.O.’ or similar), which has not always been copied, so some data has been permanently lost. A small minority of the cards escaped the cull, possibly accidentally, and were found among the eggs when unpacking the collection at GMRC.

The Liddell data cards reveal a wide geographical and temporal range. One card, written in modern hand, reveals the earliest eggs, and also the most remote from Glasgow, to be six individual crested tern and swift tern eggs from Black Rock, Norfolk Island (between Australia and New Zealand) in 1849. The writing states that the eggs were ‘[p]ossibly taken by John Macgillivray, naturalist on the H.M.S. Rattlesnake which was on a

surveying cruise in the region of Cape York Australia between 1846-1850'. The most recent card records a clutch of two collared dove eggs taken in Jubilee Park, Willington, County Durham on 15 September 2007, by an APS, almost certainly Andrew Seed, a collector with whom Liddell exchanged eggs. Seed was convicted in 2010 of 17 offences related to egg-collecting and trading (BBC News 2010), and it was via emails between Seed and Liddell that the latter was caught. The other 174 cards show clutches from a wide variety of dates and locations. Slightly under half date from after the Protection of Birds Act 1954, with the 1970s particularly well represented (51 clutches), but fewer than ten percent of clutches date from after the Wildlife and Countryside Act 1981.[268] Most clutches came from sites spread around the British Isles, from Shetland to Devon and Norfolk to County Mayo. A sizeable minority were taken from further afield, including Alaska, Gambia and India, but mainly from European sites with Spain especially well represented (14 clutches).

Looking at the Liddell data cards, what is striking is the sheer interconnectedness of the British egg-collecting world, and how the data cards of the Liddell collection in many ways form a microcosm of this world. Of the collectors meriting an entry in the compendia by Cole and Trobe (2000; 2011) over 30 are represented in the Liddell data cards, out of a total of 200 in the original book and another 30 or so in the 2011 update; the Liddell collection therefore ties in a sizeable proportion of the British egg-collecting fraternity. Many of the post-1954 clutches have had the collectors' name blacked out, to avoid incrimination, so the true proportion may be even higher. What is particularly interesting is the way that some cards show how a single clutch of eggs may have passed, like precious cargo, through the hands of various different individual collections, by way of sale, exchange or gift. The composite data card shown in Figure 8.1, for a clutch of European Vulture, is emblematic in this respect.[269]

First, an unknown collector took this clutch of two European vulture eggs from Andalucia in 1904, after which they entered the collection of Percy Bunyard, a collector encountered in Chapter 6 as a regular attendee of early BOA meetings, and sparring partner with Jourdain. Cole and Trobe (2000) record that Bunyard died in 1937 and his collection was sold at Stevens' Auction Rooms in 1939, but the next owner recorded on the card is A. Pearman in April 1943, as written in pencil down the lower left of the card and reiterated in

[268] Eleven clutches are of carrion crow eggs, taken in the space of a few weeks in 1977 by C. Murray from around the aptly named villages of Birdsedge and Crow Edge in West Yorkshire.
[269] This card is one of the few that were not destroyed, and remains along with the eggs of the Liddell collection.

pen at middle right. Alf Pearman was also encountered in Chapter 6 as a contributor to *Bird Land*, and he was also a member of the Jourdain Society, an expert on the hobby (bird of prey) and an skilled repairer of damaged eggs (*ibid.*). The next owner recorded is R. Nichols, a friend of Pearman's mentioned in Chapter 5 as a shy man who was nevertheless a member of the Jourdain Society. From Nichols, who died in 1982, to Liddell the record goes blank, so the data card presents a paper trail with a few missing links.

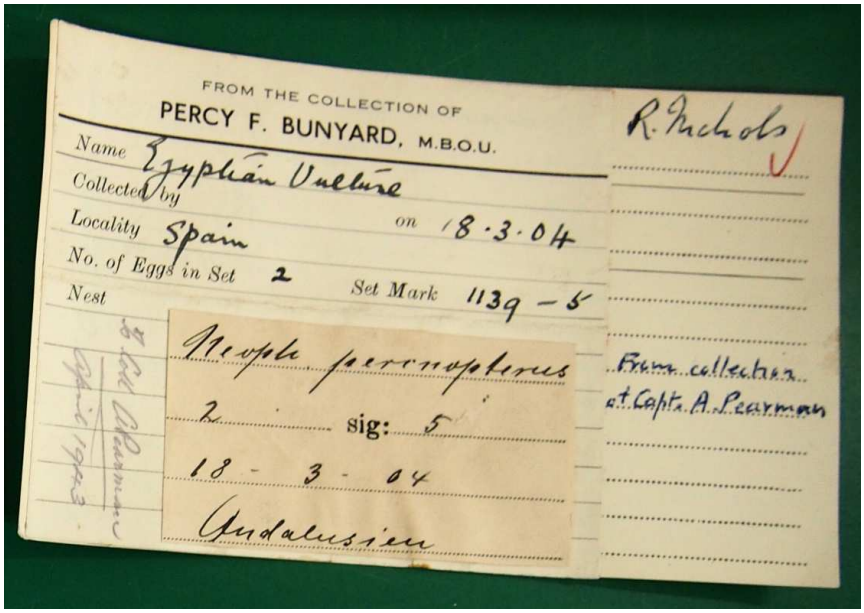


Figure 8.1 Data card from the Liddell collection.
(© CSG CIC Glasgow Museums Collection)

The roll call of other notable names represented in the Liddell data cards is too long to list in full, but brief mention can be made of some of the collectors encountered in earlier chapters, such as Eddie Lees, who helped Ludwig Koch sound-record the cuckoo (Chapter 5); Les Flack and Frank Whatmough, who wrote for *Bird Land* (Chapter 6); and Charles Horsbrugh, who went on collecting trips for museums, specialised in 'runt' eggs and also wrote for *Bird Land*. Clutches of brown pelican and magnificent frigate bird eggs taken from Trinidad and Tobago in 1938 by Guy Harrison, publisher and Joint Editor of *OR*, may be from the expedition recorded in 'Sea bird islands of the South Caribbean' (Harrison 1938), which would add a link between the GM collections and the print spaces of oology discussed in Chapter 6. Last but not least, there is a clutch of hedge accentor parasitised by cuckoo from Holderness, Yorkshire in 1894 taken by E.S. Steward, occasional companion of Arbuthnott.[270] So there are eggs in the GM collections taken by

[270] Today the hedge accentor is more commonly called the dunnock.

the same hand, but having made very different journeys to arrive at Glasgow.

Reflections

The Liddell data cards show some of the many informal connections within the British egg-collecting world, which were at least as important as the formal collective structures discussed in Chapter 6, but about which the written record is often sparse. Tracking some more of these interconnections would make for a rewarding future research project. In the same vein, throughout the thesis I have tried to bring to light some of the many rich human stories that comprise the history of egg-collecting, and the practices, preoccupations and predilections of egg collectors.

This thesis has examined a once-popular cultural practice – egg-collecting – that hitherto has not received sustained academic attention. As such it contributes to scholarship in a number of areas. By taking as its focus a practice which revolved around taking birds'egg – objects that are of animal origin, and have the potential to become an independent animal, yet arguably do not quite attain the status of fully living thing – this study extends the reach of animal geographies to the 'almost-animal', furthering previous work that has looked beyond an earlier focus on the higher mammals and vertebrates to 'lower' forms of life (e.g. Bear 2011; Ginn 2014). The ambiguous ontological status of eggs, I have argued, contributed to the fierce ethical debates that raged around egg-collecting in the early twentieth century, in which the focus of the ethical concern thended to shift between individual parent birds, wider bird populations, eggs and the birds they could potentially become, and even the moral and psychological health of egg collectors.

As well as considering the place of egg-collecting in the moral landscape, this thesis also contributes to established historical geographies of the countryside, through examining the 'animal landscapes' visited by collectors in pursuit of eggs. These activities entailed an intimate acquaintance with many different types of terrain and the behaviour of the birds which nested there, requiring a combination of physical prowess and ornithological knowledge which inspired a valorisation of fieldwork among oologists. Many also saw themselves as engaged in a form of field sport, but like the otter hunters (and unlike the wildfowlers) examined by Matless, Merchant and Watkins (2005), they were increasingly seen by opponents as an 'archaic relic' (*ibid.*: 202), engaged in an outdated and cruel mode

of interaction with the natural world, in contrast with the emerging pastime of birdwatching. A once-popular pastime became an illegal activity, today furtively carried out only by a tiny number of marginalised individuals.

This thesis also contributes to historical geographies of science in a number of ways. Oology, as examined through the GM archive and specialist publications such as *OR* and *Bird Land*, emerges as a particularly vivid mixture of scientific study and more visceral enthusiasm. This may be partly a result of the almost entirely amateur composition of the oological fraternity who, whilst attempting to furnish oology with the trappings of an established science, such as associations, formal meetings and specialist publications, did not feel hidebound to restrain their enthusiasm to the extent that professional scientists may have done. Sheer excitement and enthusiasm pour out of the written record of egg-collecting, and this thesis thus builds on recent work on enthusiasm (Geoghagan 2009, 2013; Craggs *et al.* 2013), in this case looking at a historical group of enthusiasts rather than present-day subjects.

Despite oologists' evident enthusiasm and even delight in collecting eggs, as discussed in Chapter 6 a distinction was often made between the 'true oologist', driven by a thirst for knowledge through scientific study, and other, purportedly less laudable motivations such as outdoor sport, aesthetic enjoyment and simple acquisitiveness. Alberti (2001) reveals comparable distinctions being made among naturalists in late Victorian Yorkshire, but whereas they invoked scientific motivations to maintain credibility relative to each other and to the emerging body of professional scientists, oologists were driven by a more existential threat. The validity of their activities was increasingly being questioned by mainstream ornithologists, bird protection groups and the wider public, and I have argued that the formation of specialist associations, formal meetings and specialist publications, by which egg-collectors attempted to afford oology the status of a respectable science, reflected its estrangement from mainstream ornithology rather than its burgeoning strength. In contrast to the scientific institutions of earlier eras discussed by Withers (2001), Alberti (2001), Finnegan (2009) and Naylor (2010), the institutions of of oology were not embedded in wider civic society. By the mid twentieth century, oology presented the unusual spectacle of a self-styled science falling into decline and obscurity, paralleled by the fate of *OR* and the deaths of many of the oological establishment's most prominent figures.

This project has been titled ‘Handle With Care’, an apt title in a number of ways. ‘Handle’ can refer to the methodological approach taken, and I consider the mixture of practical experience and more traditional archival research to have been crucial to its success. In terms of the archival research, both the GM archive and the wider published record of oology were rich seams to mine. I feel that researching and *handling* the physical copies of *OR* and other journals, and the written field notes of the GM collectors, helped me to devote time and attention to an extent that I believe would have been much more difficult if simply using virtual copies. Something intangible about the physical records allowed for a deeper immersion, and for me to devote more *care* to them, again in line with the title of this thesis. This project is thus in part an affirmation of traditional archival methods and values, as well as showing the value of combining these methods with other forms of research and practice. Appreciating the material qualities of the original documents finds a parallel in the ‘unique selling point’ that museums provide in the opportunity to see, learn about and sometimes even handle real, and not just virtual, objects.

‘Handle’ can also refer to the hands-on experience gained during the course of this project, by working with GM as a partner institution via a Collaborative Doctoral Award. As well as handling the written archive left by some of the collectors represented at GM, I also had the pleasure of dealing with the material archive comprising the eggs themselves, although somewhat paradoxically I did not actually handle the eggs very often, for fear of breaking them, remembering that egg collections are in fact egg*shell* collections, made up of fragile objects which need to be handled with great physical care. I also had the opportunity to handle and use some of the egg-blowing tools donated to GM, re-enacting past practices, largely lost to the present. Going out to visit some of the field sites where the GM collectors had once roamed was a welcome counterpoint to the archival and museum work that was of necessity mainly done indoors, and helped to provide an aspect of topographical sleuthing of physical geography along with the more obviously human geographies forming the basis for the rest of the project. Working at GM to put together a display of eggs, and an accompanying talk, gave me hands-on experience of museum work and, on a relatively small scale, encompassed some of the issues and challenges that face museums today. One thing that was really brought home was that, along with types of difficulty specific to egg collections, museums face a whole host of other types of difficulty on a day to day basis, not least economic and resourcing pressures.

I consider the collaborative aspects of this project to have been almost entirely successful.

Richard and Helen were both a pleasure to work alongside. While not being embedded in GM at any point in the project, at times I was a frequent visitor and indeed participant, and feel I did develop insights into GM as an organisation, being able to go 'behind the scenes at the museum'. I have outlined above some of the benefits that I gained from this project, but GM has also benefited in numerous ways from detailed research about one part of their natural history collections. The opportunity for an egg display in the GMRC foyer was hugely fortunate and well-timed for this project, and made for a fitting finale, more than trebling (albeit temporarily) the number of birds' eggs on display at GM. The research contained within this thesis and my transcriptions of the written archive are also available to give GM a fuller understanding of their egg collections, and possibly as a basis for further display, either virtual or physical. I addition, I have contributed to the public talks programme and Glasgow Science Festival, promoted the GM collections by giving talks at numerous conferences and public-facing events, and supplied content for social media at GM and on the NatSCA website. Cumulatively these contributions have helped to promote the GM egg collections both within and beyond GM. This work has been particularly valuable given the points raised in Chapter 7 about the pressures of museum resources such as staff and budget cuts, and the increasing reliance on volunteers for research on collections. The findings of this project could also serve as the basis for further research on the egg collections of GM or other institutions. Furthermore, GM holds written records made by other types of collector, such as conchologists (collectors of seashells), that would repay a similar approach in future.

I have deliberately not gone into detail about the present-day situation of egg-collecting in this thesis. Egg-collecting is widely pilloried, even reviled, as a pursuit in the popular imagination, at least insofar it is often represented in the media. The very fact that it is so unpopular means that only a few individuals are now attracted to egg-collecting enough to overcome the hurdles provided by the law and popular opprobrium, and they may even treat the cat-and-mouse game with the authorities as part of the attraction. One of the few memoirs of recent collectors, by Colin Watson (2009), bears witness to this kind of attitude. Since egg-collecting is so obviously an esoteric activity today, it is, I contend, less intriguing in many ways that it was in the early to mid twentieth century, when it was a much more hotly debated subject, very popular but increasingly contested. I wanted to seek out the enchantment of egg-collecting, as well as investigating its gradual estrangement from mainstream ornithology and public opinion. I have tried to handle my subject with care, as a now mainly historical phenomenon which deserves to be investigated in detail to

see what made collectors ‘tick’, and in doing so I have found egg-collecting to be a rich culture of natural history, culture of collecting and culture of the British countryside, with interconnecting strands of scientific endeavour and other forms of enthusiasm. Communicating the cultural (and scientific) value of egg collections, while at the same time not implicitly encouraging a revival of the now-illegal practices by which they were originally taken, also requires care. I hope that more of the egg collections are brought to public view in future, in a manner that acknowledges their difficulty, ethical or otherwise, without necessarily being dominated by it.

For the success of this project, it has been fortunate that some owners of egg collections have donated them to museums, rather than adhering to the course advised in *Bird Land*:

> If thou wouldst study ornithology,
> Take my advice and shun oology,
> Because the world regards as scandalous,
> The ways of egg-collectors vandalous;
> The man who butterflies impales,
> Or filches shells from blameless snails,
> ...
> Will find the world his deeds acclaim,
> Raise him to pinnacles of fame;
> And at his death, unless they’re shabby,
> Give him a tombstone in the Abbey.
> But as for you, should you aspire
> An egg collection to acquire
> The world will ostracise you
> And young and old anathemise you,
> Because your evil predilictions [*sic*]
> Run contrary to their convictions.
> ...
> So heed my warning most emphatic,
> Hide your collection in the attic.
> (Whitaker 1952-53: 705)

Appendices

Appendix 1: Legal history of egg-collecting in Britain

Pre-1954

Bird protection legislation has a long history in the countries comprising the UK. Sheail (1976: 1) reports that in 1533 '[a]n Act [of Parliament] sought to protect the eggs of wildfowl between 1 March and 30 June each year', with the intention of preserving these species as a resource.[271] There was other sporadic legislation but the matter became more heated in the mid nineteenth century, when a Sea Birds Protection Act was passed in 1869, based mainly on concerns about the wholesale slaughter of birds around Flamborough Head in the East Riding of Yorkshire. The collecting of eggs was made exempt from this legislation over concerns that it would cause economic hardship on coastal communities. Eggs were not covered under subsequent Acts of 1872, 1876 and 1880, prohibiting the killing of a wider variety of bird species in a 'close-season' around breeding time. The first modern Act to prohibit the taking of birds' eggs was the Wild Birds' Protection Act of 1894, 'which gave councils the option of protecting specific birds and their eggs, or forming areas for the protection of all species' (*ibid.*: 28).[272] The former course of action proved more popular, with 70 local authorities having specified protected species by 1910 compared with just 17 protected areas, but both approaches were difficult to enforce in practice. In 1902 a further Act allowed for the confiscation of illegally-taken birds or eggs, which 'ended the anomaly of collectors selling the carcases, skins or eggs for amounts exceeding the fines imposed by the courts' (*ibid.*: 29). Further Acts dealt with matters concerning live birds rather than their eggs, and government Bills proposed between 1923 and 1927, which did include proposals for the protection of eggs, failed to reach the statute book. The 1894 Act, with its anomalies created by differential rules across local authority boundaries (discussed in Chapter 6) remained the key piece of legislation relating to birds' eggs in most of the UK until after the Second World War.[273]

[271] The following information about the legislation up to and including the 1954 Act, and its amendments, has been taken from Sheail (1976).
[272] This type of legal protection, where only eggs of certain species were protected, was known as a 'White List' system. In contrast, under a 'Black List' system, all eggs would be protected, except those of certain named species.
[273] The exception was Northern Ireland, where much more restrictive legislation had been passed in 1931.

Protection of Birds Act 1954

Following 'the longest and most complex Bill ever introduced by a private member' (*ibid.*: 35), Lady Tweedsmuir, the Protection of Birds Act was passed in 1954, which 'simplified the protection of birds by repealing fifteen previous Acts, including Game Laws dating back to 1772 and all the wild bird legislation since 1880' (*ibid.*: 36). Taking or destroying the eggs of all wild birds was prohibited, with a fine imposed of up to five pounds per egg (UK Parliament 1954). Special penalties of up to 25 pounds per egg, or a month's imprisonment, were imposed in the case of a specified list of rare species including eagles, numerous other birds of prey, corncrake and greenshank (*ibid.*). In order to avoid incriminating schoolboy collectors, an exemption was made for the eggs of 20 common species including magpie, crow and house sparrow, with a further 20 species exempted in a supplementary Order of 1955 (Prynne 1963: 287).[274] These exemptions were repealed in 1967 following lobbying by bird protectionists, aided by the harsh winter of 1962-63. The sale of almost all wild bird eggs (bar a few exemptions for consumption or hatching), of any species that had nested in the British Isles, was also prohibited under the 1954 Act. (Under the Act, similar prohibitions were placed on the taking and sale of nests or of wild birds themselves.)

Wildlife and Countryside Act 1981

The 1954 Act was effective in curbing the trade in British birds'eggs (as carried out by professional dealers, at least). However, the Act was much less effective in curtailing the taking of eggs, since it did not specifically prohibit the possession of eggs thereby obtained, and offences under the Act were 'summary' in nature (UK Parliament 1954: 12). This meant that they were tried in a magistrates' court, and the accused had to be charged within six months of an offence taking place, with offences discovered later going unpunished. If a collector could evade detection when taking eggs, and his actions did not come to light in the next six months, he was safe from prosecution and was also entitled to keep the eggs.

These loopholes were closed in the Wildlife and Countryside Act 1981, which replaced the

[274] The lists of exempted species included some that were applied only in Scotland, although taking Scottish eggs was not permitted on a Sunday or Christmas Day. Exemptions were also made for taking black-headed and common gull eggs for consumption, and lapwing eggs before 15 April each year (UK Parliament 1955, quoted in Prynne 1963: 287).

1954 Act and its later amendments, and brought the UK in line with European directives. The open period for prosecutions was extended to 'six months from the date on which evidence sufficient in the opinion of the prosecutor to warrant the proceedings came to his knowledge' (*ibid.*: 20), albeit with a constraint that 'no such proceedings shall be brought … more than two years after the commission of the offence' (*ibid.*). Perhaps more significantly, the 1981 Act also stated that 'if any person has in his possession or control … an egg of a wild bird or any part of such an egg, he shall be guilty of an offence' (*ibid.*: 2), so possessing eggs, and not just taking them, became an offence. However, if the collector could show that each egg was collected prior to the 1981 Act came into force (on 28th September 1982), he would not be committing an offence by possessing the eggs.[275] Like the earlier legislation, the 1981 Act prohibited taking and selling eggs, and had an expanded list of specially protected 'Schedule 1' species, and a small list of 'pest' species whose eggs could be taken (although not sold) by an 'authorised person' (UK Parliament 1981: 3).[276] Fines could be imposed of up to £1,000 per egg for Schedule 1 species, later increased to £5,000 or up to six month in jail (RSPB n.d.), penalties which can be applied cumulatively depending on the number of eggs in question.

2004 amendment, legal challenge and 2016 government response

In 2004 an amendment (for England and Wales) to the 1981 Act narrowed the conditions for possessing eggs so that the 'Pre-1981 defence' no longer applied. Instead, defence of possession could only be made 'if the person could show the egg was taken from the wild prior to the introduction of the 1954 Act (the 'Pre-1954 exception')' (Defra and Welsh Government 2016: 1). A separate Act was passed in Scotland with wording to the same effect (Scottish Parliament 2004). This amendment 'was not subject to full public consultation' (Defra and Welsh Government 2016: 1) nor debated in Parliament (Bowcott 2011); nor was it widely publicised, so many collectors were unaware that they were now breaking the law by holding eggs taken between 1954 and 1981. In 2006 the Tyneside home of John Dodsworth was raided and around 1,000 eggs confiscated. He was convicted in 2009 under the amendment but appealed, and his conviction was quashed 'on the grounds that no one was aware such possession had been an offence' (*ibid.*); subsequently '… [i]n 2011 Defra [Department for Environment, Food and Rural Affairs] accepted that … [the amendment] 'was made unlawfully' (Defra and Welsh Government 2016: 1).

[275] The use of gendered pronouns here copies the wording in the printed Act (UK Parliament 1981).
[276] An 'authorised person' included the property owner or someone authorised by the owner, local authority, or a number of specified nature conservation bodies (UK Parliament in Prynne 1963).

In 2014 public consultation was opened asking respondents to choose whether they preferred the Pre-1954 exception or the Pre-1981 defence, and to state advantages and disadvantages for each option. A summary was published in January 2016 along with the government response (Defra and Welsh Government 2016). 18 individuals and 16 institutions responded, including 'local and national museums [not including GM] and related bodies, policing bodies/representatives and non-government organisations … such as the RSPB and Countryside Alliance' (*ibid.*: 1). 74% of the respondents preferred reverting to the Pre-1981 Defence, as opposed to 23% in favour of the Pre-1954 exception. After consideration, Defra and the Welsh Government opted for the Pre-1981 defence, citing the following factors:

- There would be no significant benefit to wildlife conservation in maintaining the Pre-1954 exception.
- Reinstating the Pre-1981 defence is a proportionate response to, what is now, a declining activity.
- The 1981 Act, including the Pre-1981 defence, was fully scrutinised when the Bill went through Parliament.
- The Pre-1981 defence complies with the requirements of the EU Wild Birds Directive but avoids 'gold-plating' in line with current UK Government policy.[277]
- Historical collections with scientific value would be preserved for research purposes. (*ibid.*: 10)

Whether the Scottish Parliament will follow the same decision is not yet clear.

Licences for museums and individuals

In summary, it is illegal to take eggs, sell eggs of any age, and to possess eggs taken since the Wildlife and Countryside Act 1981 came into force. However, museums (and individuals) can apply for licences to exempt them from the prohibitions on taking and possessing eggs by applying to the Secretary of State, which in Scotland is done through Scottish Natural Heritage.[278] Potentially valid reasons include 'scientific or educational

[277] The European Birds Directive, first adopted in 1979 has a general prohibition on 'taking their eggs in the wild and keeping these eggs even if empty' (European Parliament and Council of the European Union 2009: 9).
[278] The ability to apply for licences was granted under both the 1954 and 1981 Acts.

purposes' and 'the purposes of any public exhibition' (UK Parliament 1981: 16).

The Convention of International Trade in Endangered Species of Flora and Fauna (CITES n.d.) requires that special import and export permits are granted for the import and export of the bodies (live or dead) or products of species listed in the Convention. These rules may impact egg collections in the event that they are moved between countries, permanently or for a temporary exhibition.

Appendix 2: Some significant twentieth-century oologists

All factual information not specifically credited in the text is taken from Cole and Trobe (2000).

CONGREVE, William Maitland. Major (1883-1967)

Major William Maitland Congreve was born in 1883 and was educated at Cheltenham College, where he started collecting eggs (Cole and Trobe 2011). For most of the period from 1903 to 1919 he served in the Royal Garrison Artillery, including a posting in Gibraltar from 1909-11 where he did a lot of collecting with Colonel Willoughby Verner (1852-1922), a 'legendary' collector from the previous generation (Cole and Trobe 2000: 265).[279] On resigning his commission, Congreve 'he devoted himself to oology and in particular to the care and enrichment of his growing collection' (Blair 1968: 2) while living first in Wales and then from 1938 near Salisbury probably supported by a private income (Cole and Trobe 2011: 25). He travelled widely with a number of different companions, including Jourdain, but his favourite country remained Spain (Blair 1968: 3). As a 'field man', expert in the practice of finding and taking eggs from nests, he had 'few rivals in the field' in his prime (*ibid.*). Congreve was editor of *OR* from 1946 to 1964, but his contributions ran all the way from 1921 until just before his death in 1967, covering almost the entire lifetime of the journal. As quoted widely in this thesis he wrote widely on the practice of egg-collecting, in particular being a stickler for reliable data, and also provided reports of many of his foreign nesting expeditions. During his long editorship and other contributions, Congreve imbued *OR* with his presence and understated humour, and it is not surprising that his name was described as 'synonymous with the Record' (Christian 1969: 56).

JOURDAIN, Francis Charles Robert. Reverend. (1865-1940)

The Reverend Francis Jourdain was born in 1865. After attending university at Oxford he was ordained and worked in parishes in Suffolk, Derbyshire and Berkshire until he retired in 1925, after which he settled near Bournemouth. As well as collecting locally he went on trips further afield almost every year from 1900 to 1939, visiting Holland, Spain, Romania,

[279] Greer (2009) mentions some of Verner's nesting exploits.

Tunisia, Palestine and Norway, along with many other places. Jourdain was President of the BOA from 1932-1039 and Joint Editor of *OR* from 1935-1939. He was also Assistant Editor of *British Birds* and *The Ibis*, served on the Council of the British Trust for Ornithology, and was a member of the national ornithological societies of numerous other countries. He jointly edited *The Handbook of British Birds*, published in 1938-1941, and wrote pieces in *OR*, *The Ibis* and elsewhere. Jourdain's knowledge of egg-collecting and of the breeding biology of birds was immense, and he was keen to stress the scientific aspects of oology. He could be scathing about those who were less well informed than he was, and reportedly had 'a somewhat brusque manner and was not altogether easy to get along with' (Congreve 1967: 49); he also reputedly lacked organisational ability (*ibid.*: 51). Despite these foibles, Jourdain was the undisputed king of British oology, with his death in 1940 described as 'a quite irreparable disaster to ornithology and to oology in particular' (*OR* 1946a: 1). His unequalled stature in oological circles was commemorated by the subsequent renaming of the BOA as the Jourdain Society.[280]

NETHERSOLE-THOMPSON, Desmond 1868-1937

Nethersole-Thompson was born in Lincolnshire and started collecting at a young age, which activity continued after his family moved to London while he was still a boy. In visits to Sussex he met Walpole-Bond, from whom he learned crucial collecting skills such as finding nests through watching birds and listening to their calls, and ropework. After studying at the London School of Economics Nethersole-Thompson became a schoolmaster, which gave him time and just enough money 'to pursue his obsessional egging exploits … in the forefront of a new generation of committed young egg collectors' (Cole and Trobe 2000: 190). He caused a furore after taking red kite eggs which were exhibited at the BOA, an incident complained about in *The Ibis* in 1932 and which precipitated the resignation of Rothschild as President (see Chapter 6). Later in the same decade Nethersole-Thomson was active in a more conciliatory role, attending a meeting with prominent protectionists on behalf of the oological fraternity in 1939 (also discussed in chapter 6). Earlier he had written a number of articles for *OR* in the early 1930s, reproduced by Peregrine as *In Search of Breeding Bird*s (1992), and he also made significant contributions to the wider field of ornithology. He had first visited Scotland in

[280] It retained this name until it was wound up in 2014, victim of the ever dwindling ranks of self-styled oologists.

1932 and shortly after moved to Speyside, marrying his first wife Carrie, a local who was also a skilled nest-finder who had assisted visiting collectors such as Jourdain and Chance. They spent summers searching for nests and painstakingly observing the behaviour of birds such as the greenshank and snow bunting, camping out for weeks on end even after the arrival of their two children; these studies formed the basis of acclaimed books (e.g. Nethersole-Thompson 1951, 1966). As well as being a widely-respected ornithologist, Nethersole-Thompson was a Labour councillor who stood twice (unsuccessfully) for Parliament, and by all accounts a very colourful character, some of whose exploits are recounted by Lorimer (2014).

ROTHSCHILD, Lionel Walter (Lord) 1868-1937

After being educated at Cambridge, Rothschild worked in the family banking business and became MP for Aylesbury, and inherited the title of Baron Rothschild of Tring from his father in 1915. He founded the Zoological Museum at Tring, and amassed a vast 'egg collection mainly by acquisition from the collections of others, and by engaging professional collectors to work directly for him' (Cole and Trobe 2000: 222). He also went on a few collecting trips personally in North Africa. Rothschild was instrumental in setting up formal institutions of oology, chairing the BOC's oological dinners from 1911 and becoming first President of the BOA in 1922. He resigned in 1932 after the red kite controversy discussed in Chapter 6. On his death in 1937, his museum was donated to the British Museum. It now forms part of the Natural History Museum, and is where that institution's bird and egg collections are held.

STUART BAKER, Edward Charles (1864-1944)

Stuart Baker joined the Indian Police in 1883 and later became Inspector General of Assam and 'the foremost authority on the birds of India' (Cole and Trobe 2000: 247). Walters (2005: 12-13) notes, with some confusion over cat species, that Stuart Baker:

> wrote with his left hand, not because he was left-handed but because he had no right arm. In his youth he was on a tiger hunt, and a leopard suddenly leaped out of the bushes and attacked him. The only thing he could think of to do was to plunge his right arm down the tiger's throat with all the force he could muster. This action so startled the tiger that it stopped it for the few vital seconds necessary to allow the

beaters to rush up and kill it.

After returning to England in 1912 he commanded the Port of London police until his retirement in 1925, and was Mayor of Croydon in 1938-39. He was Honorary Secretary and Treasurer of the BOU from 1913-36, and he was also BOA Vice-President until his resignation following the red kite controversy with Nethersole-Thompson recounted in Chapter 6. He contributed numerous papers to *The Ibis*, *OE&M* and *OR*, and to BOA meetings. Stuart Baker had a particular interest in cuckoos. He also went on many trips abroad, including many to Lapland and Finland, where he sought green sandpiper eggs, among others. The GM collections contain some eggs in the Mackenzie with data cards stating 'COLL. E.C. STUART BAKER'. Stuart Baker's collection is now in the Natural History Museum, and correspondence held at GM indicates that some of these eggs were originally collected by Mackenzie.

WALPOLE-BOND, John Arthington ('Jock) 1878-1958.

Born in Kent and educated at Winchester and Oxford (although he did not take a degree), Walpole-Bond lived for most of his life in Hove, Sussex. He inherited £30,000 from his father and so could live off private wealth. Although primarily an egg-collector, '[h]e was also a very shrewd observer' of birds (E.C.L.S. 1958: 29), and wrote numerous books, most notably the three-volume *A History of Sussex Birds* (1938), as well as contributing much information to *The Handbook of British Birds* (1938-41). Walpole-Bond was Assistant Editor of *OR* from 1937-39 but does not appear in membership lists of the BOA. He was noted for his physical toughness and fitness, and his appearance was striking:

> In his later years his fine, clean-cut face, surmounted by flowing, Lloyd-Georgian locks, with the added embellishment of a handle-bar moustache, made him a most striking figure. Unfortunately, as he always ventured after birds in clothes which would long have been discarded by a tramp, the British public reacted to him in a most unconventional manner ... Once, when returning from the Downs after a day spent on the Grasshopper Warbler ... he came down a lane and surprised what he called a "Rah Party." This was his term for all picnickers. It was a very expensive "rah-party," with Rolls-Royce, footmen, *nouveau riche* owner, and glamour girls. They gave one look at Jock and were stricken with pity (or conscience). "Here's five bob for you, my man" says the host. Jock replied, with an air and manner only obtainable at Winchester, "Thank *you*, sir, but a glass of your champagne would be much more acceptable." With which he seized a glass of Perrier-Jouet from the tray of the astonished footman, drank the health of the picnickers in his own gallant manner, and strode on down the lane. (E.C.L.S. 1958: 29-30)

E.M. Cawkell (in Cole and Trobe 2000) notes Walpole-Bond's sensitive ear for birdsong and bird calls. Walpole-Bond visited other parts of the British Isles but is not recorded to have gone abroad. Moss (2005) describes him as one of the last ornithologists from the Victorian era.

Appendix 3: List of items in the GMRC egg-collecting archive box

The archive box held at GMRC contains the following items. For each item in the list, I have listed the individual collection it came from, a brief physical description of the item, a summary of its contents, and action taken in terms of transcription, along with any other relevant notes.

Original material donated along with specific collections:

1	Collector	Cross
	Description	Small leather-look notebook
	Notes	Details of Cross's 'main collection'. This notebook lists eggs by species, number of eggs and where taken, along with the date in most instances.
	Action taken	Transcribed by Richard Sutcliffe (RS) in spreadsheet form.

2	Collector	Cross
	Description	Small notebook
	Notes	'Record of behaviour of golden eagles during incubation period from. 5th April to 26th April. 1957. (Both dates inclusive.) at "The Slock" South Ayrshire. By forestry Gamekeeper. T.G. Trotter.' Also contains notes written by Cross, and a few more by a third contributor [add name].
	Action taken	Transcribed by Edward Cole (EC).

3	Collector	Cross
	Description	Small notebook 'With Compliments from / Alexander & Sons / Licensed Knackers / Omoa, Newarthill' [North Lanarkshire].
	Notes	Detailed notes of Cross's activities watching eagles and other birds of prey in the 1950s and 1960s.
	Action taken	Partially transcribed by EC. The notes from 1957-60 had been copied by Cross into the Cross-Trotter diary, so it was deemed unnecessary to transcribe them.

4	Collector	Cross
	Description	Small notebook
	Notes	Notes from various years (1950s and 1960s) of birds sighted, mainly in SW Scotland. List of associates. List of Drumlanrig keepers.
	Action taken	Not transcribed [but maybe transcribe first and final few pages]. It was agreed with RS that the contents were not of great value, given the time it would have taken to transcribe them.

5	Collector	Robertson
	Description	Very decrepit notebook (between A5 and A6 size).
	Notes	Birdwatching (including occasional egg-collecting) activities in 1895-97, mainly in Renfrewshire and Ayrshire.
	Action taken	Transcribed by EC. Data also entered in spreadsheet by RS to extract biological records

6	Collector	Arbuthnott
	Description	Medium-sized (approx. A5) black softback notebook
	Notes	Notes of clutches taken – species, where, when and by whom (child's handwriting).
	Action taken	Transcribed by EC.

7	Collector	Arbuthnott
	Description	Hardback file (foolscap?)
	Notes	Notes of clutches taken – species, where, when and by whom (child's handwriting).
	Action taken	Transcribed by EC.

8	Collector	Arbuthnott
	Description	Hardback red and black notebook with spine in pieces
	Notes	Notes of clutches taken – species, where, when and by whom (adult's handwriting).
	Action taken	Transcribed by EC.

9	Collector	Arbuthnott
	Description	Softback booklet (approx. A5 –A6 size)
	Notes	'A list of European birds, including all species found in the Western Palaearctic Region. The nomenclature carefully revised by Henry E. Dresser, F.L.S., F.Z.S., &c., &c.', 1881. List of bird species names with some cut out (probably for use in cabinets along with the relevant clutches).
	Action taken	Not transcribed.

10	Collector	Hay
	Description	Blue foolscap ring binder
	Notes	Handwritten notes about collecting activities, plus envelope containing data labels.
	Action taken	Transcribed by EC.

11	Collector	Mackenzie
	Description	Hardback notebook (approx. foolscap)
	Notes	Notes on clutches in collection, including those purchased.
	Action taken	Not transcribed except for a few selected pages by EC.

12	Collector	Mackenzie
	Description	Hardback notebook (approx. foolscap)
	Notes	Notes on clutches in collection, including those purchased.
	Action taken	Not transcribed except for a few selected pages by EC.

13	Collector	G.M. Todd
	Description	Softback booklet (approx. A5 –A6 size)
	Notes	'The Graduated list of British birds specially compiled for labelling eggs by Herbert W. Marsden', 1881. List of bird species names.
	Action taken	Not transcribed.

14	Collector	Mitchell?
	Description	Softback notebook (approx. A6 size)
	Notes	'J Mitchell'/ 'Oology' / 'Re-listed 24/1/56' Handwritten list of bird species names.
	Action taken	Not transcribed.

Other material relating to the GM egg collections:

15	Collector	Liddell
	Description	Spiral-bound A4 sheets
	Notes	Photocopies of data cards associated with the Liddell collection. From Guy Shorrock (RSPB).
	Action taken	Transcribed by EC.

16	Collector	Hensol
	Description	Black box file
	Notes	GM Ornithology specimen sheets (one per clutch).
	Action taken	Not transcribed.

17	Collector	McIntosh, Charles
	Description	Brown A4 envelope
	Notes	GM Ornithology specimen sheets (one per clutch), plus handwritten letter about McIntosh by donor, Brenda Sayer.
	Action taken	Letter transcribed by EC.

18	Collector	Grafton, Ian
	Description	Black A4 ring binder.
	Notes	GM ornithology specimen sheets (one per clutch), plus photocopy of handwritten letter from Grafton to Richard Sutcliffe (8th February 1992).
	Action taken	Not transcribed.

19	Collector	Hay / Cross
	Description	A4 (approx.) sheets in brown envelope
	Notes	Correspondence involving GM pertaining to the Cross and Hay collections
	Action taken	Not transcribed.

20	Collector	Arbuthnott
	Description	A4 (approx.) sheets in brown envelope
	Notes	Biographical information plus covering note sent by J Mitchell.
	Action taken	Not transcribed.

21	Collector	Cross
	Description	A4 (approx.) sheets in brown envelope
	Notes	Correspondence relating to the donation of Cross's collection to GM.
	Action taken	Not transcribed.

22	Collector	Cross
	Description	A4 (approx.) sheets in brown envelope
	Notes	Biographical information.
	Action taken	Not transcribed.

23	Collector	Mackenzie
	Description	A4 (approx.) sheets in brown envelope
	Notes	Biographical information.
	Action taken	Not transcribed .

24	Collector	Various
	Description	Plastic A4 wallet
	Notes	Miscellaneous information about various minor egg collections donated to GM.
	Action taken	Not transcribed.

25	Collector	Various
	Description	Black A4 ring binder
	Notes	Miscellaneous information about various minor egg collections donated to GM, plus photocopied newspaper and magazine articles about egg-collecting [multiple or only one?].
	Action taken	Not transcribed.

26	Collector	Various including Hensol
	Description	Box file with red spine
	Notes	Items relating to the Hensol collection and other, smaller, collections donated to GM.
	Action taken	Not transcribed.

27	Collector	Various
	Description	Yellow ring binder
	Notes	Details of miscellaneous collections donated to GM.
	Action taken	Not transcribed.

Other material (not directly relating to the GM egg collections):

28	Collector	Various
	Description	1980s-style computer paper in brown envelope: 'Brighton Bird Eggs'
	Notes	From Dr G. Legg, Keeper of Biology, Booth Museum of Natural History, Brighton. 'With my compliments / G. Legg / 13/5/83' Print-out on computer paper with species names, collector names, locations, dates and other data. Looks like bird specimens also listed.
	Action taken	Not transcribed.

29	Collector	Various
	Description	A4 (approx.) sheets in brown envelope: ‘Birds egg seminar’ / ‘15 Feb 1990’
	Notes	Running order of the seminar, plus notes and summaries of the talks. Letter from Michael Walters (Natural History Museum) about Richard Sutcliffe’s write-up, including of Walter’s talk (Sutcliffe 1990).
	Action taken	Not transcribed.

Bibliography

‘A correspondent’ (1926) ‘Notes on the Collection of the late Sir Vauncey Crewe’, *The Oologists’ Record* 6(1), 9-10.

‘[A] famous ornithologist’ (1961) quoted in ‘Miscellanea’, *The Oologists’ Record* 35(2), 26-32.

Addington , E., Burns, N., Callaghan, A., Cartwright, S., Coia, C., Edwards, N., Hayes, F., Jamieson, C., Johnson, M., Kerrigan, K., Kim, S., Laing, C., Lane, J., MacInnes, J., Mackay, M., McGugan, C., McPherson, M., Murphy, L., O’Neill, M., Robertson, A., Robertson, L., Sitholé, T., Spalding, J., Valentine, J. and Walker, D. (2010) *Out There. The Open Museum: Pushing the Boundaries of Museums’ Potential*, Glasgow: Culture and Sport Glasgow (Glasgow Museums).

A.G.S. (1951-53) ‘The Northern Oological Society’, *Bird Land* 7, 467.

A.H.C. (1970) ‘Sir Charles Belcher’, *Emu* 70(2), 91-92.

AHRC (Arts and Humanities Research Council) (2015) ‘Collaborative doctoral awards funded since 2005’ (http://www.ahrc.ac.uk/funding/opportunities/current/collaborativedoctoralawards/ accessed on 1 April 2016).

Alberti, S.J.M.M. (2001) ‘Amateurs and professionals in one county: biology and natural history in late Victorian Yorkshire’, *Journal of the History of Biology* 34(1), 115-147.

Alberti, S.J.M.M. (2007) ‘The Museum Affect: Visiting Collections of Anatomy and Natural History’ in A. Fyfe and B. Lightman (eds.) *Science in the Marketplace: Nineteenth-Century Sites and Experiences*, Chicago and London: University of Chicago Press, 371-403.

Alberti, S.J.M.M. (2008) ‘Constructing Nature Behind Glass’, *Museum and Society* 6(2), 73-97.

Alexander, E.P. and Alexander, M. (2008) *Museums in Motion: An Introduction to the History and Functions of Museums*, Lanham, MD and Plymouth: AltaMira Press. 2nd Edition.

Allan, P. (2013) 'Glasgow's *Ghost Dance* Shirt: reflections on a circle to complete', in Clegg, M., Redfern, R., Bekvalac, J. and Bonney, H. (eds.) *Global Ancestors: Understanding the Shared Humanity of Our Ancestors*, Oxford: Oxbow Books.

Allen, D.E. (1994 [1976]) *The Naturalist in Britain: A Social History*, Princeton, NJ and Chichester, West Sussex: Princeton University Press. 2nd Edition.

Allen, D. (1996) 'Tastes and crazes' in Jardine, N., Secord, J.A. and Spary, E.C. (eds.) *Cultures of Natural History*, Cambridge, Cambridge University Press, 394-407.

Allen, D. (1998) 'On parallel lines: natural history and biology from the late Victorian period', *Archives of Natural History* 25(3), 361-371.

Amalgamated Press Ltd (publisher) (n.d.) *The Concise Household Encyclopedia*, London: The Amalgamated Press Ltd.

Anderson, K. (1995) 'Culture and nature at the Adelaide Zoo: at the frontiers of "human" geography', *Transactions of the Institute of British Geographers* 20(3), 275-294.

Anderson, B. (1983) *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, London: Verso.

Anderson, J.G.T. (2013) *Deep Things Out of Darkness: A History of Natural History*, Berkeley and Los Angeles, CA and London: University of California Press.

Aristophanes (1950 [414 BC]) *The Birds*, London: George Allen & Unwin Ltd, trans. G. Murray.

Armstrong, E.A. (1958) *The Folklore of Birds*, London; Collins.

Autolycus (1933) 'Quo Vadis?', *The Oologists' Record* 13(2), 38-46.

Bachelard, G. (1994) *The Poetics of Space*, Boston, MA: Beacon Press.

Baekeland, F. (1994 [1981]) 'Psychological aspects of art collecting' in Pearce, S.M. (ed.) *Interpreting Objects and Collections*, London: Routledge, 205-219.

Baker, A.R.H. and Billinge, M. (eds.) (1982) *Period and Place: Research Methods in Historical Geography*, Cambridge: Cambridge University Press.

Bal. M. (1992) 'Telling, Showing, Showing Off', *Critical Inquiry*, 18(3), 556-594.

Bal, M. (1994) 'Telling Objects: A Narrative Perspective on Collecting' in Elsner, J. And Cardinal, R. (eds.) *The Cultures of Collecting*, London: Reaktion, 97-115.

Barber, L. (1980) *The Heyday of Natural History*, London: Jonathan Cape Ltd.

Barkham, P. (2006) 'The egg snatchers', *The Guardian*, 11 December 2006, (https://www.theguardian.com/environment/2006/dec/11/g2.ruralaffairs accessed on 3 August 2016).

Barnes (1977) *Interests and the Growth of Knowledge*, London: Routledge.

Baudrillard, J (1994 [1968]) 'The System of Collecting' in Elsner, J. And Cardinal, R. (eds.) *The Cultures of Collecting*, London: Reaktion, 7-24.

BBC News (2010) 'Flute player admits theft of 299 rare bird skins', BBC News, 26th November 2010 (http://www.bbc.co.uk/news/uk-england-beds-bucks-herts-11845699 accessed on 1 May 2016).

BBC News (2011) 'Natural History Museum thief ordered to pay thousands', BBC News, 30th July 2010 (http://www.bbc.co.uk/news/uk-england-beds-bucks-herts-14352867 accessed on 1 May 2016).

Bear, C. (2011) 'Being Angelica? Exploring individual animal geographies', *Area* 43(3), 297-304.

Beel, D.E. (2010) *Reinterpreting the Museum: Social Inclusion, Citizenship and the Urban Regeneration of Glasgow*, University of Glasgow PhD thesis.

Belcher, C.F. ('C.F.B.') (1935) 'Week-end in Guyana', *The Oologists' Record* 15(3), 54-59.

Belcher, C.F. ('C.F.B.') (1938) 'Letter. The Australian raids', *The Oologists' Record* 18(1), 21-24.

Belcher, C.F. ('C.F.B.') (1957) 'Reminiscences of a bird-lover', *The Oologists' Record* 31(2), 26-32.

Belcher, C.F. ('C.F.B.') (1956) 'Birds of eastern and north eastern Africa', *The Oologists' Record* 22(1), 16-17.

Belcher, C.F. ('C.F.B.') (1961) 'Reminiscences of a bird-lover', *The Oologists' Record* 35(4), 56-60.

Belk, R.W., Wallendorf, M., Sherry, J. and Hollbrook, M. (1990) 'Collecting in a consumer culture', *Highways and Byways*, 3-95, Provo, Utah: Association for Consumer Research.

Belk, R.W. and Wallendorf, M. (1994) 'Of mice and men: gender identity in collecting' in Pearce, S.M. (ed.) *Interpreting Objects and Collections*, London: Routledge, 240-253.

Belk, R.W. (1994) 'Collectors and collecting' in Pearce, S.M. (ed.) *Interpreting Objects and Collections*, London: Routledge, 320-326.

Belk, R.W. (1995) *Collecting in a Consumer Society*, London and New York; Routledge.

Benjamin, W. (2006) *The Writer of Modern Life: Essays on Charles Baudelaire*, Cambridge, MA and London: The Belknap Press of Harvard University Press.

Bennett, T. (1995) *The Birth of the Museum: history, theory, politics*, Abingdon and New

York: Routledge.

Bennett, T. (1998) ‘Pedagogic Objects, Clean Eyes and Popular Instruction: On Sensory Regimes and Museum Didactics’, *Configurations*, 6(3), 345-371.

Berger, J. (1980 [1977]) ‘Why Look at Animals?’ in Berger, J. (1980) *About Looking*, London: Writers’ and Readers’ Publishing Co-op, 1-26.

Bircham, P. (2007) *A History of Ornithology*, London; HarperCollins (New Naturalist Library).

Billinge, M. (1993) ‘Trading history, reclaiming the past: the Crystal Palace as icon’ in Kearns, G. and Philo, C. (eds.) *Selling Places: The City as Cultural Capital, Past and Present*, Oxford: Pergamon Press Ltd, 103-131.

Bircham, P. (2007) *A History of Ornithology*, London: Harpercollins (New Naturalist Library).

Bird Land (1946-47a) Untitled introductory comments, *Bird Land* 1, 2.

Bird Land (1946-47b) ‘Special Offers’, *Bird Land* 1, 12.

Bird Land (1950-51a) ‘Editor’s Notes’, *Bird Land* 5, 133-135.

Bird Land (1950-51b) ‘Birds in the news’, *Bird Land* 5, 254.

Bird Land (1951-53) ‘Editor’s notes’, *Bird Land* 6-7, 681-684.

Bishop, J. (1921) ‘Bird Notes from the Western Front’, *The Oologists’ Record* 1(1), 8-15.

Birkhead, T. (2016) *The Most Perfect Thing: Inside (and Outside) a Bird’s Egg*, London: Bloomsbury Publishing.

Black, G. (2012) *Transforming Museums in the Twenty-First Century*, Abingdon and New York: Routledge.

Black, J.G. (1929 [1920]) *Birds Nesting*, 2nd edition, Newcastle: Andrew Reid & Company.

Blair, H.M.S. (1968) 'Obituary. William Maitland Congreve M.C. 1883-1967', *The Oologists' Record* 42(1), 2-4.

Blom, P. (2002) *To Have and To Hold: An Intimate History of Collectors and Collecting*, Woodstock, NY: The Overlook Press.

"Blue Dun" (1952-53) 'The road to Handa', *Bird Land* 7, 724-728.

BOA (1935) *B.O.A. Rules amended to March, 1935*, London: Harrison & Sons, Ltd.

BOA Bulletin (1927), *Bulletin of the British Oological Association. Volume I. January 1923 to November 1926*, London: Taylor and Francis.

BOA Bulletin (1930), *Bulletin of the British Oological Association. Volume II. January 1927 to November 1929*, London: Taylor and Francis.

BOA Bulletin (1933), *Bulletin of the British Oological Association. Volume III. January 1930 to November 1932*, London: Harrison and Sons, Ltd.

BOA Bulletin (1935) *Bulletin of the British Oological Association. Volume IV. March 1933 to November 1935*, London: Harrison and Sons, Ltd.

BOA Bulletin (1939) *Bulletin of the British Oological Association. Volume V. February 1936 to November 1938*, London: Harrison and Sons, Ltd.

BOA Bulletin (1946) *Bulletin of the British Oological Association. Volume VI. January 1939 to March 1946*,, London: Harrison and Sons, Ltd.

BOC Bulletin (1900) *Bulletin of the British Ornithologists' Club. Volume X. Session 1899-1900*. London: R.H. Porter.

BOC Bulletin (1911) *Bulletin of the British Ornithologists' Club, Volume XXVII. Session 1910-1911*. London: Witherby & Co.

BOC Bulletin (1921) *Bulletin of the British Ornithologists' Club. Volume XLI. Session 1920-21*, London: Witherby & Co.

Bonnell, J. and Simon, R.I. (2007) '"Difficult" exhibitions and intimate encounters', *Museum and Society* 5(2), 65-85.

'B.O.U.' (1934) "Our notorious national hypocrisy" ', *The Oologists' Record* 14(3), 53-56.

Bourdieu, P. and Darbel, A. with Schnapper, D. (1991) *The Love of Art: European Art Museums and Their Public*, Cambridge: Polity Press.

Bowcott, O. (2010) 'Lawyers crack case of "unlawful" eggs', *The Guardian*, 26 December 2011 (https://www.theguardian.com/law/2011/dec/26/lawyers-crack-case-unlawful-eggs accessed on 31 August 2016).

Bowker, G. C. and Star, S.L. *Sorting Things Out – Classification and its Consequences*, Cambridge, MA And London: The MIT Press.

Bressey, C. (2012) 'Reporting oppression: mapping racial prejudice in Anti-Caste and Fraternity, 1888-1895', *Journal of Historical Geography* 38(4), 401-411.

Bressey, C. (2014) 'Archival interventions: participatory research and public historical geographies', *Journal of Historical Geography* 46, 102-104.

Brewer, Rev. E.C. (n.d.) *A Dictionary of Phrase and Fable. New Edition*, London: Cassell and Company, Ltd.

Brown Goode, G. (1901) 'The principles of museum administration', in Smithsonian Institution, *A Memorial of George Brown Goode Together With a Selection of His Papers on Museums and on the History of Science in America*, Washington: Government Printing Office, 193-240.

Browne, M. (n.d.) *Practical Taxidermy*, London: L.Upcott Gill.

Buller, H. (2014) 'Animal geographies I', *Progress in Human Geography* 38(2), 308-318.

Buller, H. (2015) 'Animal geographies II. Methods', *Progress in Human Geography* 39(3), 374-384.

Buller, H. (2016) 'Animal geographies III. Ethics', *Progress in Human Geography* 40(3), 422-430.

Buteo (1950) 'Those large-sized clutches', *The Oologists' Record* 24(2), 25-28.

Callon, M. (1999 [1986]) 'Some elements of a sociology of translation: domestication of the scallops and the fishermen of St. Breiuc Bay' in Biagioli, M. (ed.) *The Science Stidues Reader*, New York and London: Routledge, 67-83.

Callon, M. (1994) 'Four models for the dynamics of science' in Jasanoff, S. (ed.) *Handbook of Science and Technology Studies*, London: SAGE Publications Ltd., 29-63.

Camerini, J. (1997) 'Remains of the day: early Victorians in the field' in Lightman, B. (ed.) *Victorian Science in Context*, Chicago: The University of Chicago Press, 354-377.

Cameron, L. (2014) 'Participation, archival activism and learning to learn', *Journal of Historical Geography* 46, 99-101.

Campbell, R. (2016) 'Retired solicitor fined for illegal egg collecting on Orkney', *The Press and Journal*, 15th June 2016 (https://www.pressandjournal.co.uk/fp/news/islands/947283/retired-solicitor-fined-for-illegal-egg-collecting-on-orkney/ accessed on 20 June 2016).

Cant, S.G. (2006) 'British Speleologies: geographies of science, personality and practice, 1935-1953', *Journal of Historical Geography* 32(4), 775-795.

Cantor, G., Dawson, G., Gooday, G., Noakes, R., Shuttleworth, S. and Topham, J.R. (2004) *Science in the Nineteenth-Century Periodical: Reading the Magazine of Nature*,

Cambridge: Cambridge University Press.

Carlson, A. (1981) 'Nature, aesthetic judgement, and objectivity', *The Journal of Aesthetics and Art Criticism* 40(1), 15-27.

Carter, G.N. (1923) 'Wild Birds Protection Bill, 1923', *The Oologists' Record* 3(3), 52-57.

Carter, G.N. (1924) 'The Bempton Cliffs', *The Oologists' Record*, Vol. IV (3), 22-23.

Cooper, A. (1998) 'From the Alps to Egypt (and back again): Dolomieu, scientific voyaging, and the construction of the field in eighteenth-century natural history' in Smith, C. and Agar, J. (eds.) *Making Space for Science: Territorial Themes in the Shaping of Knowledge*, Basingstoke: Macmillan Press Ltd, 39-63.

Chalmers-Hunt, J.M. (ed.) (1976) *Natural History Auctions 1700-1972. A Register of Sales in the British Isles*, London: Sotheby Parke Burnett.

Chambers (publisher) (1958) *British Birds' Eggs: A Handbook of Egg Identification*, London and Edinburgh: W. & R. Chambers Ltd.

Chance, E.P. (1922) *The Cuckoo's Secret*, London: Sidgwick & Jackson.

Chance, E.P. (1930) 'The cuckoo in 1930', *The Oologists' Record* 10(3), 54-57.

Chatwin, B. (1988) *Utz*, London: Jonathan Cape.

Christian, R.J.B. ('R.J.B.C.') (1965) 'Some Notes on the Ecology of the Woodlark (**Lullula Arborea** [sic])', *The Oologists' Record* 39(1), 11-17.

Christian, R.J.B. (1969) 'Salvete', *The Oologists' Record* 43(3-4), 56.

Christian, N. (ed.) (2012) *A Gentle Old Fashioned Pursuit. Tales from the Diary of the 20th Century Egg Collector and Naturalist John Christian*, Leominster: Nebularia Books.

Christy, M. (1888) *Birdsnesting and Bird-Skinning*, London: T. Fisher Unwin (revised and

rewritten from original by E. Newman).

Cleasby, E. (1982) ‘Pete Whillance: A Profile’, *High Magazine* 1, 42-43.

Clifford, J. (1994) ‘Collecting ourselves’ in Pearce, S.M. (ed.) *Interpreting Objects and Collections*, London: Routledge, 258-268.

CITES (n.d.) Convention on International Trade in Endangered Species of Wild Flora and Fauna (https://www.cites.org/sites/default/files/eng/disc/CITES-Convention-EN.pdf accessed on 31 August 2016).

Cloke, P., Cook, I., Crang, P., Goodwin, M., Painter, J. and Philo, C. (2004) *Practising Human Geography*, London: SAGE Publications Ltd.

Cochrane, H.L. (‘H.L.C.’) (1946) ‘On the nesting of *Emberiza cioides castaneiceps* Moore’, *The Oologists’ Record* 20(3), 45-48.

Cochrane, H.L. (‘H.L.C.’) (1950) ‘The yellow-vented bulbul (*Pycnonotus barbatus xanthopygos*)’, *The Oologists’ Record* 24(2), 22-25.

Cochrane, H.L. (1963) ‘An eastern Mediterranean islet’, *The Oologists’ Record* 37(4), 54-57.

Cocker, M. (2008 [2007]) *Crow Country*, London: Vintage Books.

Cole, A.C. (2006) *The Egg Dealers of Great Britain*, Horsforth, Leeds: Peregrine Books.

Cole, A.C. and Trobe, W.M. (2000) *The Egg Collectors of Great Britain and Ireland*, Horsforth, Leeds: Peregrine Books.

Cole, A.C. and Trobe, W.M. (2011) *The Egg Collectors of Great Britain and Ireland: An Update*, Horsforth, Leeds: Peregrine Books.

Cole, E. (2015) ‘Impetuous torrents: Scottish waterfalls in travellers’ narratives, 1769-1830’, *Scottish Geographical Journal* 131(1), 49-66.

Cole, E. (2016) ‘Blown out: the science and enthusiasm of egg collecting in the Oologists’ Record, 1921-1969’, *Journal of Historical Geography* 51, 18-28.

Congreve W.M. (1925) ‘Letters to the Editor. On specialisation and collaboration in oology’, *The Oologists’ Record* 5(3), 63-64.

Congreve, W.M. (1927) ‘Hints on field-work’, *The Oologists’ Record* 7(2), 40-46.

Congreve, W.M. (1932) ‘Comments on “A short British nesting trip”, *The Oologists’ Record* 12(2), 39-45.

Congreve, W.M. (1939) ‘Some impressions of the Danube Delta, 1938’, *The Oologists’ Record* 19(1), 2-7.

Congreve, W.M. (1946a) ‘The Division of the Spoils’, *The Oologists’ Record* 20(2), 23-27.

Congreve, W.M. (1946b) ‘On the breeding of the red-breasted flycatcher’ *The Oologists’ Record* 20(4), 55-58.

Congreve, W.M. (1948) ‘On preparation and data. Part I’, *The Oologists’ Record* 22(4), 49-55.

Congreve, W.M. (1949) ‘On preparation and data. Part II’, *The Oologists’ Record* 23(2), 19-28.

Congreve, W.M. (1951) ‘A month in France in 1950. Part III’, *The Oologists’ Record* 25(1), 1-8.

Congreve, W.M. (1952) ‘From my Spitsbergen diary. Part I’, *The Oologists’ Record* 26(1), 1-6.

Congreve, W.M. (1953) ‘From my Spitsbergen diary. Part V’, *The Oologists’ Record*, 27(1), 1-6.

Congreve, W.M. [‘W.M.C.’] (1954) ‘Obituaries’, *The Oologists’ Record* 28(1), 9-11.

Congreve, W.M. (1962) ‘Marmora’s warbler. Part II’, *The Oologists’ Record* 36(3), 33-37.

Congreve, W.M. [‘W.M.C.’] (1963) ‘Obituary’, *The Oologists’ Record* 37(3), 42-43.

Congreve, W.M. (1967) ‘Further memories of Parson Jourdain’, *The Oologists’ Record* 41(3), 49-53.

Congreve, W.M. and Freme, S.W.P. (1930) ‘Seven weeks in eastern and northern Iceland’, *The Ibis* 72(2), 193-228.

Coues, E. (1890) *Handbook of Field and General Ornithology*, London: Macmillan and Co.

Coward, T.A. (1927) *Bird Life at Home and Abroad*, London: Frederick Warne & Co Ltd.

Coward, T.A. (1950 [1920]) *The Birds of the British Isles and their Eggs*, 3 volumes, London and New York; Frederick Warne & Co. Ltd.

Craggs, R., Geoghegan, H. and Keighren, I.M. (eds.) (2013) *Collaborative Geographies: The Politics, Practicalities, and Promise of Working Together (Historical Geography Research Series, No. 43)*, London: Royal Geographical Society.

Craggs, R., Geoghegan, H. and Neate, H. (2013) ‘Architectural enthusiasm: visiting buildings with The Twentieth Century Society’, *Environment and Planning D: Society and Space* 31(5), 879-896.

Craig, M. (2015) *Art, Context & REAL LIFE*, Glasgow Museums Gallery of Modern Art blog post, 22nd October 2015 (https://galleryofmodernart.wordpress.com/2015/10/22/art-context-real-life/ accessed on 1 May 2016).

Csikszentmihalyi, M. And Rochberg-Halton, E. (1981) *The Meaning of things: Domestic symbols and the self*, Cambridge: Cambridge University Press.

Curtis, N. (2014) '"A welcome and important part of their role": the impact of repatriation on museums in Scotland' in Tythacott, L. and Arvanitis, K. (eds.) *Museums and Restitution: New Practices, New Approaches*, Farnham: Ashgate, 85-104.

Danet, B. And Katriel, T. (1986) 'Books, butterflies, Botticellis: a life-span perspective on collecting', paper presented at Sixth International Conference on Culture and Communication, Philadelphia, PA., October 1986.

Danet, B. And Katriel, T. (1994) 'No two alike: play and aesthetics in collecting' in Pearce, S.M. (ed.) *Interpreting Objects and Collections*, London: Routledge, 220-239.

Daston, L. and Galison, P. (1992) 'The Image of Objectivity', *Representations* 40, 81-128.

Davie, O. (1900 [1894]) *Methods in the Art of Taxidermy,* Philadelphia: David McKay.

Davies, G. (2000) 'Virtual animals in electronic zoos. The changing geographies of animal capture and display' in Philo, C. and Wilbert, C. (eds.) *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*, London and New York: Routledge, 243-267.

Davies, N.B. (2015) *Cuckoo: Cheating By Nature*, London: Bloomsbury Publishing.

Davis, L.J. (2008) *Obsession: A History*, Chicago and London: The University of Chicago Press.

Davis, W.J. (1907) *Bird and Animal Preserving and Mounting*, Dartford: J. & W. Davis.

DeLyser, D. (2014) 'Towards a participatory historical geography: archival interventions, volunteer service, and public outreach in research on early women pilots', *Journal of Historical Geography* 46, 93-98.

Department for Environment, Food and Rural Affairs, and Welsh Government (2016) *Possession of wild bird eggs: establishing the grounds for an offence. Summary of responses and government response to the consultation on proposed legislation in England and Wales* (no publisher specified).

DeSilvey, C. (2007) ‘Practical remembrance: material and method in a recycled archive’ in Gagen, E., Lorimer, H. and Vasudevan, A. (eds.), *Practising the Archive: Reflections of Method and Practice in Historical Geography Together (Historical Geography Research Series, No. 40)*, London: Royal Geographical Society, 37-45.

Dresser, H.E. (1871-82) *A History of the Birds of Europe, Including all the Species Inhabiting the Western Palaearctic Region* (8 volumes), London: The Author.

Dresser, H.E. (1881) *A List of European Birds, Including All Species Found in the Western Palaearctic Region*, London: published by the author.

Dresser, H.E. (1910) *Eggs of the Birds of Europe, Including all the Species Inhabiting the Western Palaearctic Area* (2 volumes), London: published by the author.

Driver, F. (1994) ‘Making space’, *Ecumene* 1(4), 386-390.

Driver, F. (2013) ‘Historical geographers in collaboration: patterns and prospects’, in Craggs, R., Geoghegan, H. and Keighten, I.M. (eds.), *Collaborative Geographies: The Politics, Practicalities, and Promise of Working Together (Historical Geography Research Series, No. 43)*, London: Royal Geographical Society, 11-27.

Drouin, J.-M. and Bensaude-Vincent, B. (1996), ‘Nature for the people’ in N. Jardine, N., Secord, J.A. and Spary, E.C. (eds.), *Cultures of Natural History*, Cambridge: Cambridge University Press, 408-425.

Duclos, R. (2004) ‘The Cartographies of Collecting’ in Knell, S.J. (ed.) *Museums and the Future of Collecting*, Aldershot: Ashgate. 2nd Edition, 84-101.

Dudley, S.H. (2010) ‘Museum Materialities: Objects, sense and feeling’ in S. Dudley (ed.) *Museum Materialities: Objects, Engagements, Interpretations*, Abingdon: Routledge, 1-17.

Dudley, S.H. (ed.) (2012) *Museum Objects: Experiencing the Properties of Things*, Abingdon and New York: Routledge.

D.W.M. (1956) ‘Obituary. Edgar P. Chance, M.A., J.P.’, *The Oologists’ Record* 30(1), 13.

D.W.M. (1966) ‘Obituary. Kenneth Macomb Chance’, *The Oologists’ Record* 40(1), 20.

Eagleton, T. (2008) *Literary Theory: An Introduction*, Minneapolis: University of Minnesota Press.

eBEAC (Electronic Bulletin for European Avian Collectors, Collections and others) (n.d.)‘Electronic inventory of European bird collections (http://www.nhm.ac.uk/research-curation/scientific-resources/collections/zoological-collections/ebeac/database.html accessed on 1 April 2016).

E.C.L.S. (1958) ‘Obituary. John Walpole-Bond’, *The Oologists’ Record* 22(2), 28-31.

E.C.L.S. (1963) ‘Book reviews’, *The Oologists’ Record* 37(4), 62-63.

Eden, S. and Bear, C. (2011) ‘Reading the river through “watercraft”: environmental engagement through knowledge and practice in freshwater angling’, *Cultural Geographies* 18(3), 297-314.

Edwards, B. and Gilbert, D. (2007) ‘Planning Piccadilly: methods and sources for re-interpreting 1960s London’ in Gagen, E., Lorimer, H. and Vasudevan, A. (eds.), *Practising the Archive: Reflections of Method and Practice in Historical Geography Together (Historical Geography Research Series, No. 40)*, London: Royal Geographical Society, 75-87.

Ellis, B. (2008) ‘Essentialism and natural kinds’ in Psillos, S and Curd, M. (eds.), *The Routledge Companion to Philosophy of Science*, Abingdon: Routledge, 139-148.

Elsner, J. And Cardinal, R. (eds.) (1994) *The Cultures of Collecting*, London: Reaktion.

Endersby, J. (2008) *Imperial nature: Joseph Hooker and the practices of Victorian science*, Chicago and London; The University of Chicago Press.

Eugenides, J. (2011 [2002]) *Middlesex*, London: Bloomsbury.

European Parliament and Council of the European Union (2009) 'Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)', *Official Journal of the European Union* 53 L020 (26.1.2010), 7-25.

Evans, D. (1992) *A History of Nature Conservation in Britain*, London: Routledge.

Evans, G. (1954) *The Observer's Book of Birds' Eggs*, London: Frederick Warne & Co.

Evans, S.L. (2013) 'Between terra incognita and home: a collaborative expedition through the RHS archives', in Craggs, R., Geoghegan, H. and Keighten, I.M. (eds.), *Collaborative Geographies: The Politics, Practicalities, and Promise of Working Together (Historical Geography Research Series, No. 43)*, London: Royal Geographical Society, 39-49.

Fenner, J. (2013) 'Beneath a hive of glass': the British Small Craft Exhibit and the experiences of researching model boats at the Science Museum', in Craggs, R., Geoghegan, H. and Keighten, I.M. (eds.), *Collaborative Geographies: The Politics, Practicalities, and Promise of Working Together (Historical Geography Research Series, No. 43)*, London: Royal Geographical Society, 29-38.

Fine, G.A. (1979) 'Small groups and culture creation: the idioculture of Little League baseball teams', *American Sociological Review* 44(5), 733-745.

Finnegan, D.A. (2008) 'The spatial turn: geographical approaches in the history of science', *Journal of the History of Biology* 41(2), 369-388.

Finnegan, D.A. (2009) *Natural History Societies and Civic Culture in Victorian Scotland*, London and Brookfield, VT: Pickering & Chatto (Publishers) Limited.

Flew, A. (1975) *Thinking about Thinking (Or, do I sincerely want to be right?)*, (no place of publication specified): Fontana/Collins.

Forgan, S. (1994) 'The architecture of display: museums, universities and objects in nineteenth-century Britain', *History of Science*, 32(3), 139-162.

Formanek, R. (1994 [1991]) ‘Why they collect: collectors reveal their motivations’ in Pearce, S.M. (ed.) *Interpreting Objects and Collections*, London: Routledge, 327-335.

Forrester, J. (1994) ‘‘Mille e tre’: Freud and collecting’ in Elsner, J. And Cardinal, R. (eds.) *The Cultures of Collecting*, London: Reaktion, 224-251.

Forsyth, I.M. (2012) *From Dazzle to the Desert: A Cultural-Historical Geography of Camouflage*, University of Glasgow PhD thesis.

Forgan, S. (1994) The Architecture of Display: Museums, Universities and Objects in Nineteenth-Century Britain, *History of Science*, 32(3), 139-162.

Fortey, R. (2008) *Dry Store Room No.1: The Secret Life of the Natural History Museum*, London: HarperPress.

Foucault, M. (2002 [1970]) *The Order of Things*, Abingdon and New York: Routledge.

Fowles, J (1963) The Collector, London: Jonathan Cape.

Fowles, J. (1984) ‘The Blinded Eye’ in R. Mabey, S Clifford and A.King (eds.) *Second Nature*, London: Jonathan Cape, 77-89.

Fritte, R.S.R. (1968 [1954] *Collins Pocket Guide to Nests and Eggs*, revised edition, London: Collins.

Gallagher, M. and Prior, J. (2014) ‘Sonic geographies: exploring phonographic methods’, *Progress in Human Geography* 38(2), 267-284.

Gardiner, L. (1923) *Rare Vanishing & Lost British Birds. Compiled from notes by W. H. Hudson*, London: J.M. Dent & Sons Ltd.

GCC (2000) *Memorandum submitted by Glasgow City Council*, in Minute of Evidence of Select Committee of Culture, Media and Sport, April 2000 (http://www.publications.parliament.uk/pa/cm199900/cmselect/cmcumeds/371/0051808.ht

m accessed on 1 May 2016).

Geoghegan, H. (2009) '"If you can walk down the street and recognise the difference between cast iron and wrought iron, the world is altogether a better place": being enthusiastic about industrial archaeology', *M/C Journal: A Journal of Media and Culture* (http://journal.media-culture.org.au/index.php/mcjournal/article/view/140 accessed on 30 July 2016).

Geoghegan, H. (2013) 'Emotional geographies of enthusiasm: belonging to the Telecommunications Heritage Group', *Area* 45(1), 40-46.

Gillespie, K. and Collard, R-C (eds.) *Critical Animal Geographies*, London: Routledge.

Green, O. (2011) 'Reviews: Living Worlds, The Manchester Museum', *Museums Journal* 111(6), 40-43.

Ginn, F. (2014) 'Sticky lives: slugs, detachment and more-than-human ethics in the garden', *Transactions of the Institute of British Geographers* 39(4), 532-544.

Glasgow Herald (1924) 'Death of former Glasgow Art Gallery official', *The Glasgow Herald*, 23 April 1924.

Goddard, J. (2015) 'Foxcatcher: the true story', *The Telegraph*, 4 January 2015 (http://www.telegraph.co.uk/culture/film/11322341/Foxcatcher-the-true-story.html accessed on 11 July 2016).

Gowland, C.H. ('C.H.G.') (1947-48) 'This protectionist propaganda', *Bird Land* 2, 320-325.

Gowland, C.H. ('C.H.G.') (1948-49) 'This protectionist propaganda', *Bird Land* 3, 178-183.

Gowland, C.H. ('C.H.G.') (1951-53a) 'The Royal [sic] Oological Society', *Bird Land* 6-7, 420-422.

Gowland, C.H. (‘C.H.G.’) (1951-53b) ‘Northern Oological Society’, *Bird Land* 6-7, 601-603.

Greenhalgh, P. (1989) ‘Education, Entertainment and Politics: Lessons from the Great International Exhibitions’ in P. Vergo (ed.) *The New Museology*, London: Reaktion, 74-98.

Greer, K. (2009) ‘Ornithology on “The Rock”: territory, fieldwork, and the body in the Straits of Gibraltar in the mid-nineteenth century’, *Historical Geography* 37, 26-52.

Greer, K. (2013) ‘Geopolitics and the avian imperial archive: the zoogeography of region-making in the nineteenth-century British Mediterranean’, *Annals of the Association of American Geographers* 103(6), 1317-1331.

Griaule, M. and Dieterlin, G. (1954) ‘The Dogon’ in Forde, D. (ed.) *African Worlds: Studies in the Cosmological Ideas and Social Values of African Peoples*, London; Oxford University Press. 83-110.

Hacking, I. (1999) *The Social Construction of What?*, Cambridge, MA: Harvard University Press.

Hamilton, F. (2009) ‘Osprey anniversary’, *Scottish Bird News* 91, 3.

Hammer, S. (2016) *Feeding ecology and pollutant exposure of the great skua* Stercorarius skua *in the Faroe Islands*, University of Glasgow PhD thesis.

Haraway, D. (1984) ‘Teddy Bear Patriarchy: Taxidermy in the Garden of Eden’, *Social Text*, 11, 20-64.

Harrison, B.G. (1938) ‘Sea bird islands of the South Caribbean’, *The Oologists’ Record* 18(4), 90-94.

Harrison, C. (1985 [1975]) *A Field Guide to the Nests, Eggs and Nestlings of North American Birds*, revised edition, London: Collins.

Hasluck, P.N. (1914 [reprint of 1901 work]) *Taxidermy, Comprising the Skinning, Stuffing,*

and Mounting of Birds, Mammals, and Fish, London, New York, Toronto and Melbourne: Cassell and Company, Ltd.

Heffernan., M (2001) '"A dream as frail as those of ancient Time": the in-credible geographies of Timbuctoo', *Environment and Planning D: Society and Space* 19, 203-225.

Henson, L., Cantor, G., Dawson, G., Noakes, R., Shuttleworth, S. and Topham, J.R. (eds.) (2004) *Culture and Science in the Nineteenth-Century Media*, Aldershot, Hants and Burlington, VT: Ashgate Publishing Limited.

Hicks, D. and Beaudry, M.C. (2010) *The Oxford Handbook of Material Culture Studies*, Oxford: Oxford University Press.

Hiden, F.C. (1930) 'Notes on the breeding of the Marsh Warbler', *The Oologists' Record* 10(1), 13-16.

Higginson, T.W. (1852) 'The Life of Birds', *The Atlantic Monthly*, September 1862, 368-376.

Hill, J. (2006) 'Travelling objects: the Wellcome collection in Los Angeles, London and beyond', *Cultural Geographies*, 13, 340-366.

Historic England (2015) *Management of Research Projects in the Historic Environment: The MoRPHE Project Manager's Guide* (https://content.historicengland.org.uk/images-books/publications/morphe-project-managers-guide/HEAG024-MoRPHE-Managers-Guide.pdf/ accessed on 22 June 2016).

Hobson, W (1964) 'Notes on the Corsican Nuthatch (*Sitta Whiteheadi*, Sharpe)', *The Oologists' Record* 38(2), 22-25.

Hooper-Greenhill (1992) *Museums and the Shaping of Knowledge*, London and New York: Routledge.

Hotson, A. (2015) *Research Placement: Birds' Eggs*, University of Glasgow MSc dissertation.

JS Bulletin (1951) 'List of members', *Bulletin of the Jourdain Society. No. 20*, London: Harrison & Sons, Ltd, 167-171.

JS Bulletin (1969) 'List of members – November 1968', *Bulletin of the Jourdain Society. No. 83*, London: Harrison & Sons, Ltd, 22-24.

James, G. (2013) 'Behind the scenes: Glasgow Museums Resource Centre', *The Architectural Heritage Society of Scotland Magazine 35 (Spring 2013)*, 34-35.

Jamieson, D. (1985) 'Against zoos' in Singer, P. (ed.) *In defense of animals*, New York: Harper and Row, 108-117.

Jardine, N., Secord, J.A. and Spary, E.C. (eds), *Cultures of Natural History*, Cambridge: Cambridge University Press.

Jardine, N. and Spary, E. (1996), 'The natures of cultural history' in Jardine, N., Secord, J.A. and Spary, E.C. (eds), *Cultures of Natural History*, Cambridge: Cambridge University Press, 3-13.

Jenkins, A.C. (1978) *The Naturalists: Pioneers of Natural History*, London: Hamish Hamilton Limited.

Jones, E. (1950 [1912]) *Papers on Psycho-analysis* (5th edn.), London: Bailliere Tindall & Cox.

Jones, O. (2000) '(Un)ethical geographies of human–non-human relations: encounters, collectives and spaces', in Philo, C. and Wilbert, C. (eds.) (2000) *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*, London and New York: Routledge, 268-291.

Jourdain, F.C.R. (1923) 'Scribed data on eggs', *The Oologists' Record* 3(4), 81.

Jourdain, F.C.R. (1931) 'Field work of British ornithologists in 1930', *The Oologists' Record* 11(1), 2-5.

Jourdain, F.C.R. (1935) ‘The skins and eggs of the great auk’, *British Birds* 28, 33-34.

Jourdain, F.C.R. (1933) Untitled (letter to the Editor), *The Oologists’ Record* 13(4), 96-97.

Jourdain, F.C.R. (1937) ‘Miscellanea Ornithologica et Oologica’, *The Oologists’ Record* 17(2), 37-42.

Jourdain, F.C.R. and Shuel, R. (1935) ‘Notes on a collection of eggs and breeding-habits of birds near Lokoja, Nigeria’, *The Ibis* 77(3) 623-662.

Kear, J. (1965) ‘A Brief Review of Factors Influencing Egg-Size in a Single Species’, *The Oologists’ Record* 39(1), 1-7.

Kearton, R. (1896) *Birds’ Nests, Eggs, and Egg-Collecting*, revised edition, London: Cassell and Company, Limited.

Keene, S. (2005) *Fragments of the World: Uses of Museum Collections*, Oxford and Burlington, MA: Elsevier Butterworth-Heinemann.

Keighren, I.M., Withers, C.W.J. and Bell, B. (2015) *Travels into Print: Exploration, Writing and Publishing with John Murray, 1773-1859*, Chicago: The University of Chicago Press.

Keighren, I. (2007) ‘Breakfasting with William Morris Davis: everyday episodes in the history of geography’ in Gagen, E., Lorimer, H. and Vasudevan, A. (eds.), *Practising the Archive: Reflections of Method and Practice in Historical Geography Together (Historical Geography Research Series, No. 40)*, London: Royal Geographical Society, 47-55.

Kemmerer, L. (2010) ‘Nooz, ending zoo exploitation’ in Acompara, R.R. (ed.) *Metamorphoses of the Zoo: Animal Encounter After Noah*, New York: Lexington Books, 37-56.

Kiff, L.F. (2005) ‘History, present status, and future prospects of avian eggshell collections in North America’, *The Auk* 122(3), 994-999.

Kiser, J.M. (2012) *America's* Other *Audubon*, New York: Princeton Architectural Press

Knell, S.J. (2005) 'Altered values: searching for a new collecting' in Knell, S.J. (ed.) *Museums and the Future of Collecting*, Aldershot: Ashgate. 2nd Edition, 1-46.

Knell, S.J. (2007) 'Museums, reality and the material world' in S.J. Knell (ed.) *Museums in the Material World*, Abingdon: Routledge, 1-28.

Kobayashi, K. (1956) 'The golden mountain-thrush (*turdus daumea aureus*)', *The Oologists' Record* 30(3), 48-50.

Kohler, R.E. (2006) *All creatures: naturalists, collectors, and biodiversity, 1850-1950*, Princeton, N.J.: Princeton University Press.

Kohler, R.E. (2007) 'Finders, keepers: collecting sciences and collecting practice, *History of Science* 45(4), 428-454.

Kohut, H. (1984) *How Does Analysis Cure?*, Chicago: University of Chicago Press.

Kuklick H and Kohler RE (1996) 'Science in the Field', *Osiris* 11, 1-14.

Lack, D. (1946) 'The eggs of the red-backed shrike. Part II', *The Oologists' Record* 20(4), 49-54.

Larsen, A. (1996), 'Equipment for the field' in N. Jardine, N., Secord, J.A. and Spary, E.C. (eds.), *Cultures of Natural History*, Cambridge: Cambridge University Press, 358-377.

Latour, B. (1987) *Science in Action: How to Follow Scientists and Engineers Through Society*, Milton Keynes: Open University Press.

Latour, B. (1999) *Pandora's Hope: Essays on the Reality of Science Studies*, Cambridge, MA and London: Harvard University Press.

Latour, B. and Woolgar, S. (1986 [1979]) 'Laboratory Life: The Construction of Scientific

Facts', 2nd edition, Princeton, NJ and Chicester: Princeton University Press.

Law, J. and Hassard, J. (eds.) (1999) *Actor Network Theory and After*, Oxford and Malden, MA.: Blackwell Publishers.

Limbert, M. (2003) *The Uses and Curation of Birds' Egg Collections: An Examination and Bibliography*, Horsforth, Leeds: Peregrine Books.

Livingstone, D.N. (2003) *Putting Science in its Place: Geographies of Scientific Knowledge*, Chicago and London; The University of Chicago Press.

Lorimer, H. (2000) Guns, Games and the Grandee: The cultural politics of deerstalking in the Scottish Highlands, *Cultural Geographies*, 7(4) (2000), 403-430.

Lorimer, H. (2006), Herding Memories of Humans and Animals, *Environment and Planning D: Society and Space*, 24(4) (2006) 497-518.

Lorimer, H. (2007) 'Songs from before – shaping the conditions for appreciative listening' in Gagen, E., Lorimer, H. and Vasudevan, A. (eds.), *Practising the Archive: Reflections of Method and Practice in Historical Geography Together (Historical Geography Research Series, No. 40)*, London: Royal Geographical Society, 57-73.

Lorimer, H. (2010) 'Caught in the nick of time: archives and fieldwork' in DeLyser, D., Herbert, S., Aitken, S., Crang, M. and McDowell, L. (eds.), *The SAGE Handbook of Qualitative Geography*, London: SAGE Publications Ltd.

Lorimer, H. and Spedding, N. (2005) 'Locating field science: A geographical family expedition to Glen Roy, Scotland', *The British Journal for the History of Science* 38(1), 13-33.

Lorimer, H. and Lund, K. (2008) 'A collectable topography: walking, remembering and recording mountains' in: T. Ingold and J.L. Vergunst (eds.) *Ways of Walking: Ethnography and Practice on Foot*, Aldershot: Ashgate, 318-345.

Lorimer, H. (2014) 'Homeland', *Cultural Geographies* 21(4), 583-604.

Lorimer, J. (2007) ‘Nonhuman charisma’, *Environment and Planning D: Society and Space* 25(5), 911-932.

Lovegrove, R. (2007) *Silent Fields: The Long Decline of a Nation’s Wildlife*, Oxford; Oxford University Press.

Loyd, L.R.W. (1923) ‘A plea for the protection of birds’, *The Oologists’ Record* 3(3), 57-60.

Loyd, L.R.W. (1924a) ‘Protection of the herring gull’, *The Oologists’ Record* 4(1), 5-7.

Loyd, L.R.W. (1924b) *The Protection of Birds: An Indictment*, London: Longmans, Green and Co.

Loyd, L.R.W. (1927) ‘On the number of eggs of the foster-parent left by the Cuckoo’, *The Oologists’ Record* 7(3), 61-66.

Lynch, M. and Law, J. (1999) ‘Pictures, Texts, and Objects: The Literary Language Game of Bird-Watching’ in Biagiolo, M. (ed.) *The Science Studies Reader*, New York and London: Routledge.

MacDonald, F. (2001) ‘St Kilda and the sublime’, *Ecumene* 2001 892), 151-174.

Macdonald, H. (2002) ‘‘What makes you a scientist is the way you look at things’: ornithology and the observer 1930-1955’, *Studies in History and Philosophy of Science Part C* 33(1), 53-77.

Macdonald, S. (ed.) (1998) ‘Exhibitions of power and powers of exhibition: an introduction to the politics of display’ in S. Macdonald (ed.) *The Politics of Display: Museums, Science, Culture*, London and New York: Routledge.

Macleod, S., Hanks, L.H. and Hale, J. (eds.) (2012) *Museum Making: Narratives, architectures, exhibitions*, Abingdon and New York: Routledge.

Marren, P. (2002) *Nature Conservation: A Review of the Conservation of Wildlife in Britain 1950-2001*, London: HarperCollins.

Marren, P. (2015) 'Wings of desire: why the hobby of butterfly collecting is over – it's all about conservation now', *The Independent*, 10 August 2015 (http://www.independent.co.uk/environment/nature/uk-butterflies/wings-of-desire-why-the-hobby-of-butterfly-collecting-is-over-its-all-about-conservation-now-10448852.html accessed on 29 August 2016).

Matless, D. (1998) *Landscape and Englishness*, London: Reaktion.

Matless, D. (2000) 'Versions of animal-human: Broadland, *c*.1945-1970', in Philo, C. and Wilbert, C. (eds.) *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*, London and New York: Routledge, 115-140.

Matless, D., Merchant, P. and Watkins, C. (2005) 'Animal landscapes: otters and wildfowl in England 1945-1970', *Transactions of the Institute of British Geographers* 30(2), 191-205.

Mauries, P. (2002) *Cabinets of Curiosities*, London: Thames & Hudson.

"M.B.O.U." (1932) 'The protection question', *The Oologists' Record* 12(4), 73-79.

McGowan, B. (2009) 'The decline of the Scottish ospreys – who was to blame?', Scottish Birds 29(1), 55-58.

Mearns, B. and Mearns, R. (1998) *The Bird Collectors*, San Diego, CA and London: Academic Press.

Michelet, J. (1981 [1879]) *The Bird*, London: Wildwood House Limited.

Milton, F. (2008) '"Soulless loons and white faced shargars": The Ethics of Egg-collecting and the Children's Periodical Press' in Uglow, N. (Ed) *Victorian Ethics*, Leeds: Leeds Centre for Victorian Studies, 113-125.

Moore, N. (ed.) (1871) *Natural History Essays by Charles Waterton*, London: Frederick Warne and Co.

Moss, S (2005 [2004]) *A Bird in the Bush: A Social History of Birdwatching*, London: Aurum Press Ltd.

Muensterberger, W. (1994) *Collecting, An Unruly Passion: Psychological Perspectives*, Princeton, NJ: Princeton University Press.

Mulhearn, D. (2013) 'Facing extinction', *Museums Journal* 113(4), 24-29.

Munro, E. (2013) *Therapeutic Museum? Social Inclusion and Community Engagement in Glasgow Museums*, University of Edinburgh PhD thesis.

Museums Galleries Scotland (2011) *Guidelines for the Care of Human Remains in Scottish Museum Collections*, Edinburgh: Museums Galleries Scotland.

Natural Sciences Collections Association (2005) *A Matter of Life and Death. Natural Science Collections: Why Keep Them and Why Fund Them?* (publisher not specified) (http://www.natsca.org/sites/default/files/publications-full/A-Matter-Of-Life-And-Death.pdf accessed on 1 May 2016).

Nabokov, V. (1969 [1967]) *Speak, Memory. An Autobiography Revisited*, London: Penguin Books.

Nast, H. (1994) 'Opening remarks on "women in the field"', *Professional Geographer* 46(1), 54-66.

Naylor, S. (2002) 'The field, the museum and the lecture hall: the spaces of natural history in Victorian Cornwall', *Transactions of the Institute of British Geographers* 27(4), 494-513.

Naylor, S. (2005a) 'Introduction: historical geographies of science: places, contexts, cartographies', *The British Journal for the History of Science* 38(1), 1-12.

Naylor, S. (2005b) 'Historical geography: knowledge, inplace and on the move', *Progress*

in Human Geography 29(5), 626-634.

Naylor, S. (2010a) 'Fieldwork and the geographical career: T. Griffith Taylor and the exploration of Australia', in Naylor, S. and Ryan, J.R. (eds.) *New Spaces of Exploration: Geographies of Discovery in the Twentieth Century*, London and New York: I.B. Tauris & Co Ltd,105-124.

Naylor, S. (2010b) *Regionalizing Science: Placing Knowledges in Victorian England*, London and Brookfield, VT: Pickering & Chatto (Publishers) Limited.

Naylor, S. and Ryan, J.R. (eds.) (2010) *New Spaces of Exploration: Geographies of Discovery in the Twentieth Century*, London and New York: I.B. Tauris & Co Ltd.

Naylor, S. and Hill, J. (2011) 'Museums' in Agnew, J.A. and Livingstone, D.N. (eds.), *The SAGE Handbook of Geographical Knowledge*, London: SAGE Publications Ltd, 64-75.

"Nemo" (1930) 'Sidelights on oology', *The Oologists' Record* 10(2), 33-36.

Nethersole-Thompson, D. (1932) 'A short British nesting trip', *The Oologists' Record* 12(1) 8-13.

Nethersole-Thompson, D. (1951) *The Greenshank*, London: Collins New Natiralist Library).

Nethersole-Thompson, D. (1966) *The Snow Bunting*, London and Edinburgh: Oliver & Boyd.

Nethersole-Thompson, D. (1992) *In Search of Breeding Birds*, Horsforth, Leeds: Peregrine Books.

Newbery, J. (1760 [1744]) *A Pretty Little Pocket–Book*, London.

Nicholson, E.M. (1926) *Birds in England: An account of the state of our bird-life and a criticism of bird protection*, London: Chapman and Hall, Ltd.

Nyhart, L.K. (1996), 'Natural history and the 'new' biology' in N. Jardine, N., Secord, J.A. and Spary, E.C. (eds.), *Cultures of Natural History*, Cambridge: Cambridge University Press, 426-443.

'O.C.E.' (1949-50) 'We enjoy a modicum of success', *Bird Land* 4, 158-160.

OCC (1928) *Quarterly Circular of the Oologists' Correspondence Club* 1(1).

OCC (1934) 'List of members of the Oologists' Correspondence Club at 31st May, 1934', *Quarterly Circular of the Oologists' Correspondence Club* 8(2), 4-8.

OCC (1936) 'List of members of the Oologists' Correspondence Club at 31st May, 1936', *Quarterly Circular of the Oologists' Correspondence Club* 8(2), 4-6.

OE&M (1920a) 'European egg supplies and values', *The Oologists' Exchange & Mart*, 2(8), 59-61.

OE&M (1920b) 'The Oologists' Record', *The Oologists' Exchange & Mart*, 2(10), 73.

OE&M (1921) *The Oologists' Exchange & Mart* 3(1).

OE&M (1921b) 'List of subscribers to the "O.E. & M."', *The Oologists' Exchange & Mart*, 3(2), 5-10.

OE&M (1919) *The Oologists' Exchange & Mart* 1(1)-1(7).

OE&M (1924) 'List of subscribers to the "O.E. & M."', *The Oologists' Exchange & Mart* 8(2), 5-11.

Ogborn, M. (2006) 'Mapping words', *New Formations* 57, 145-149.

Ogborn, M. (2007) *Indian Ink: Script and Print in the making of the English East India Company*, Chicago and London: The University of Chicago Press.

Ogborn, M. and Withers, C.W.J. (2010) 'Introduction: book geography, book history' in

Ogborn, M. and Withers, C.W.J. (eds.), *Geographies of the Book*, Farnham and Burlington, VT: Ashgate Publishing Limited, 1-25.

Ogdens (company) (1923) *Birds Eggs*, set of 50 cigarette cards, Liverpool: Ogdens.

O'Hanlon, N. (2016) *Spatial variation in herring gull traits and their potential as monitors of the coastal environment*, University of Glasgow PhD thesis.

O'Neill, M. (2006) 'Repatriation and its discontents; the Glasgow experience' in Robson, E., Treadwell, L. and Gosden, C. (eds.), *Who Owns Objects? The Ethics and Politics of Collecting Cultural Artefacts*, Oxford: Oxbow Books, 105-128.

Ophir, A. and Shapin, S. (1991) 'The place of knowledge: a methodological survey', *Science in Context* 4(1), 3-21.

OR (1922) 'Bird Haunts and Nature Memories', *The Oologists' Record* 2(4), 95-96.

OR (1923a) 'A steel egg cabinet', *The Oologists' Record* 3(2), 36.

OR (1923b) 'Brevities', *The Oologists' Record* 3(3), 62-65.

OR (1925) 'The International Museum of Oology at Santa Barbara', *The Oologists' Record* 5(3), 66-67.

OR (1926) 'Obituary. H. Kirke Swann', *The Oologists' Record* 6(3), 72.

OR (1928) 'Oology and biology', *The Oologists' Record* 8(1), 2-7.

OR (1928) 'Reviews', *The Oologists' Record* 8(4), 108-109.

OR (1929) 'Prolonged periods of hard weather as factors in the evolution of bird life', *The Oologists' Record* 9(2), 43-45.

OR (1930) 'A critique of oological data', *The Oologists' Record* 10(3), 65-66.

OR (1933a) ‘Major W. M. Congreve: a disclaimer’, *The Oologists’ Record* 13(1), 23.

OR (1933b) ‘The British Oological Association’, *The Oologists’ Record* 13(3), 70-73.

OR (1935a) ‘The public collection of birds’ eggs at the Natural History Museum’, *The Oologists’ Record* 15(1), 5-6.

OR (1935b) ‘Review. The Ethics of Egg-Collecting’, *The Oologists’ Record* 15(3), 66-72.

OR (1936a) ‘Personalia’, *The Oologists’ Record* 16(2), 42-46.

OR (1936b) ‘Raids and their results (communicated)’, *The Oologists’ Record* 16(4), 78-83.

OR (1936c) ‘Personalia, *The Oologists’ Record* 16(4), 89-93.

OR (1937a) ‘Recent sales at Stevens’’, *The Oologists’ Record* 17(2), 40-41.

OR (1937b) ‘Personalia’, *The Oologists’ Record* 17(4), 92-94.

OR (1938a) ‘Personalia’, *The Oologists’ Record* 18(1), 20-21.

OR (1938b) ‘Personalia’, *The Oologists’ Record* 18(2), 45-48.

OR (1938c) ‘Personalia’, *The Oologists’ Record* 18(3), 69-72.

OR (1939a) ‘Personalia’, *The Oologists’ Record* 19(2), 36-39.

OR (1939b) ‘Wild Birds Advisory Committee’, *The Oologists’ Record* 19(2), 39-40.

OR (1939c) ‘Miscellanea Ornithologica et Oologica’, *The Oologists’ Record* 19(3), 58-59.

OR (1946a) ‘Foreword and retrospect’, *The Oologists’ Record* 20(1), 1-4.

OR (1946b) ‘Personalia’, *The Oologists’ Record* 20(1), 10.

OR (1946c) ‘Miscellanea Ornithologica et Oologica’, *The Oologists’ Record* 20(1), 11.

OR (1948) ‘Researches of British oologists abroad’, *The Oologists’ Record* 22(4), 59-60.

OR (1953) ‘Miscellanea’, *The Oologists’ Record* 27(3), 50-54.

OR (1954) ‘Miscellanea’, *The Oologists’ Record* 28(1), 16.

OR (1957a) ‘Without further comment’, *The Oologists’ Record* 31(3), 44-45.

OR (1957b) ‘The work of some oologists in the field in 1957’, *The Oologists’ Record* 31(4), 49-56.

OR (1959) ‘Some ancient history’, *The Oologists’ Record* 33(4), 58-60.

OR (1961) ‘A quote from the letter of a famous ornithologist…’, *The Oologists’ Record* 35(2), 30.

OR (1964a) ‘Cliff-scaling ropes with safety’, *The Oologists’ Record* 38(3), 43-44.

OR (1964b) ‘Obituaries. Phyl Wyer’, *The Oologists’ Record* 38(3), 46.

OR (1965a) Untitled introductory comments, *The Oologists’ Record* 39(1), 1.

OR (1965b) ‘Jourdain Society Bulletin’, *The Oologists’ Record* 39(2), 16.

OR (1965c) ‘The Jourdain Society National Collection’, *The Oologists’ Record* 39(4), 1-2.

OR (1965d) ‘Report on the Jourdain Society September Dinner’, *The Oologists’ Record* 39(4), 18-20.

OR (1967) ‘Report on the Jourdain Society September Meeting’, *The Oologists’ Record* 41(4), 80-87.

OR (1968) ‘Editorial’, *The Oologists’ Record* 42(3), 43.

OR (1969) ‘Editorial’, *The Oologists’ Record* 43(3&4), 29.

Outram, D. (1996), ‘New spaces in natural history’ in N. Jardine, N., Secord, J.A. and Spary, E.C. (eds.), *Cultures of Natural History*, Cambridge: Cambridge University Press, 249-265.

Parker, E. (1935) *Ethics of Egg-Collecting*, London: The Field.

Patchett, M.M. (2010) *Putting animals on display: geographies of taxidermy practice*, University of Glasgow PhD thesis.

Pearce, S.M. (1992) *Museums, Objects and Collections: A Cultural Study*, London: Leicester University Press.

Pearce, S.M. (Ed.) (1994a) *Interpreting Objects and Collections*, London: Routledge.

Pearce, S.M. (1994b) ‘The urge to collect’ in Pearce, S.M. (ed.) *Interpreting Objects and Collections*, London: Routledge, 157-159.

Pearce, S.M. (1994c) ‘Collecting reconsidered’ in Pearce, S.M. (ed.) *Interpreting Objects and Collections*, London: Routledge, 193-204.

Pearce, S.M. (1995) *On Collecting: an investigation into collecting in the European tradition*, London: Routledge.

Pearce, S.M (1998) *Collecting in Contemporary Practice*, London: SAGE.

Pearce, S.M (2010) ‘Foreword’ in S. Dudley (ed.) (2010) *Museum Materialities: Objects, Engagements, Interpretations*, Abingdon: Routledge, xiv-xix.

Peponis, J. And Hesdin, J. (1982) ‘The Layout of Theories in the Natural History Museum’, *9H* 2(3): 21-25.

Peters, J.L. (1931) *Check-List of the Birds of the World. Vol. 1*, Cambridge, MA: Harvard

University Press.

Philo, C. (1987) '"Fit localities for an asylum": the historical geography of the nineteenth-century "mad-business" in England as viewed through the pages of the *Asylum Journal*', *Journal of Historical Geography* 13(4), 398-415.

Philo, C. (1994) 'History, geography and the "still greater mystery" of historical geography' in Gregory, D., Martin, R. and Smith, G. (eds.), *Human Geography: Society, Space and Social Science*, Basingstoke: The Macmillan Press Ltd., 252-281.

Philo, C. (2007) '"Bellicose History" and "Local Discursivities": an archaeological reading of Michel Foucault's *Society Must be Defended*' in Crampton, J.W. and Elden, S. (eds.) *Space, Knowledge and Power: Foucault and Geography*, 341-367.

Philo, C. and McGeachan, C. (2014) 'Words', in Lee, R., Castree, N., Kitchin, R., Lawson, V., Paasi, A., Philo, C., Radcliffe, S., Roberts, S. M. and Withers, C. (eds.), *The SAGE Handbook of Human Geography (Volume 2)*, London: SAGE Publications Ltd, 545-570.

Philo, C. and Wilbert, C. (2000) 'Animal spaces, beastly places: an introduction' in Philo, C. and Wilbert, C. (eds.) *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*, London and New York: Routledge, 1-34.

Pickford, K. (1967) 'The Snow Bunting by Desmond Nethersole-Thompson', *The Oologists' Record* 41(1), 13-14.

Pitman, C.R.S. (1922) 'Oological notes on some of the breeding birds of Palestine', *The Oologists' Record* 2(3), 49-57.

Pitman, C.R.S. (1932) 'Notes on the breeding habits and eggs of *Rhinoptilus chalcopterus*, *The Oologists' Record* 12(1), 16-23.

Pitman, C.R.S. (1934) '*Erannornis Longicauda Teresita', The Oologists' Record* 14(3), 62-64.

Pitman, C.R.S. (1956) 'Egg collecting' in Hutson, H.P.W. (ed.), *The Ornithologists'*

Guide, London: H.F. & G. Witherby Ltd on behalf of the British Ornithologists' Union, 190-195.

Pierce, W.M. (1927) 'Examining the nest of a Golden Eagle in pictures', *The Oologists' Record* 7(2), 34-35.

Pomian, K. (1990) *Collectors and Curiosities: Paris and Venice, 1500-1800*, Cambridge: Polity Press.

Powell, R.C. (2002) 'The Sirens' voices? Field practices and dialogue in geography', *Area* 34(3), 261-272.

Powell, R.C. (2007a) 'Geographies of science: histories, localities, practices, futures', *Progress in Human Geography* 31(3), 309-329.

Powell, R.C. (2007b) '"The rigours of an arctic experiment": the precarious authority of field practices in the Canadian High Arctic, 1958-1970', *Environment and Planning A* 39(8), 1794-1811.

Proctor (1998) 'Geography, paradox and environmental ethics', Progress in Human Geography 22(2), 234-255.

Prynne, G.M.F. (1948) 'The ultimate destiny of private collections', *The Oologists' Record* 22(2), 23-26.

Prynne, M. (1963) *Egg-shells. An informal dissertation on birds' eggs in their every aspect and also embodying the repair and care of birds' eggs*, London: Barrie and Rockliff.

Pye-Smith, G.H.R. (1954) 'The Protection of Birds Act, 1954. A short examination', *The Oologists' Record* 28(3), 33-36.

Ratcliffe, D.A. (1967) 'Decrease in eggshell weight in certain birds of prey ', *Nature* 215, July 8, 208-210.

Ratcliffe, D.A. (1970) 'Changes attributable to pesticides in egg breakage frequency and

eggshell thickness in some British birds', *Journal of Applied Ecology* 7(1), 67-115.

Ratcliffe, D.A. (2000) *In Search of Nature*, Horsforth, Leeds: Peregrine Books.

Raw, W. (1920) 'A day's nesting in Lower Egypt', *The Oologists' Exchange & Mart*, 2(4), 26-30.

Remsen, Jr., J.V. (1995) 'The importance of continued collecting of bird specimens to ornithology and bird conservation', *Bird Conservation International* 5, 145-180.

Richards, K. (2011) 'The Field' in Agnew, J.A. and Livingstone, D.N. (eds.), *The SAGE Handbook of Geographical Knowledge*, London: SAGE Publications Ltd, 53-63.

Rigby, D. and Rigby, E. (1944) *Lock, Stock and Barrel – The Story of Collecting*, Philadelphia and London: J.B. Lippincott Company.

Robinson (1982) *Bird Detective*, London: Elm Tree Books/Hamish Hamilton Ltd.

Romanoff, A.L. and Romanoff, A.J. (1949) *The Avian Egg*, New York: J. Wiley.
Royal Ontario Museum (1976) *Communicating with the Museum Visitor: Guidelines for Planning*, Toronto: Royal Ontario Museum.

RSPB (n.d.) 'The Wildlife & Countryside Act 1981' (https://www.rspb.org.uk/forprofessionals/policy/wildbirdslaw/birdsandlaw/wca/ accessed on 3 August 2016).

Rubinstein, J. (2013) 'Operation Easter. The hunt for illegal egg collectors', *The New Yorker* 89(21), 52-61.

Ryan, J.R. (1997) *Picturing Empire: Photography and the Visualization of the British Empire*, London: Reaktion.

Ryan, J.R. (2000) '"Hunting with the camera": photography, wildlife and colonialism in Africa' in Philo, C. and Wilbert, C. (eds.) *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*, London and New York: Routledge, 203-221.

Samstag, T. (1988) *For the Love of Birds: The Story of the RSPB*, Sandy, Bedfordshire: The Royal Society fot he Protection of Birds.

Saumerez Smith, C. (1989) 'Museums, Artefacts, and Meanings' in P. Vergo (ed.) *The New Museology*, London: Reaktion.

Saunders, A. (2010) 'Literary geography: reforging the connections', *Progress in Human Geography* 34(4), 436-452.

Schonwetter, M. (1932) 'The mathematical side of oology, as applied to the study of cuckoos' eggs', *The Oologists' Record* 12(4), 83-86.

Scottish Parliament (2004) *Nature Conservation (Scotland) Act 2004* (no publisher specified)

Secord, A. (1994) 'Science in the pub: artisan botanists in early nineteenth-century Lancashire', *History of Science* 32(3), 269-315.

Secord, J.A. (2004) 'Knowledge in transit', *Isis* 95(4), 654-672.

Serjeantson, D. (2009) *Birds (Cambridge Manuals in Archaeology)*, New York: Cambridge University Press.

Serle, W. (1938) 'Nesting notes on Nigerian birds', *The Oologists' Record* 18(1), 10-18.

Shapin , S. (1988) 'The house of experiment in seventeenth-century England', *Isis* 79(3), 373-404.

Shapin, S. (1998) 'Tracing the view from nowhere', *Transactions of the Institute of British Geographers* 23(1), 5-12.

Sheail, J, (1976) *Nature in Trust. The History of Nature Conservation in Britain*, Glasgow & London; Blackie.

Shepard, P. (1996) *The Others: How Animals Made Us Human*, Washington, DC/Covelo, California: Island Press/Shearwater Books.

Sherman, D.J. and Rogoff, I. (1994) 'Introduction' in Sherman, D.J. and Rogoff, I. (eds.) *Museum Culture: Histories, Discourses, Spectacles*, Minneapolis: University of Minnesota Press.

Shrubb, M. (2013) *Feasting, Fowling and Feathers: A history of the exploitation of wild birds*, London: T & AD Poyser.

Shuttleworth, S. and Cantor, G. (2004), 'Introduction' in: Cantor, G. and Shuttleworth, S. (eds), *Science Serialized: Representations of the Sciences in Nineteenth-Century Periodicals*, Cambridge, MA and London, The MIT Press, 1-15.

Silloway, P.M., 'An Answer', *The Condor*, 5 (2), 1903, 54-55.

Silven, E. and Bjorklund, A. (2006) 'Detecting Difficulty' in Silven, E. and Bjorklund, A. (eds.), *Difficult Matters: Objects and Narratives that Disturb and Affect*, Stockholm: Nordiska museets forlag, 248-264.

Simoons (1994 [1961]) *Eat Not This Flesh: Food Avoidances from Prehistory to the Present*, Madison: University of Wisconsin Press.

Simpson, M.G. (2002) 'The plundered past: Britain's challenge for the future'. In Fforde, C., Hubert, J. Turnbull, P. (eds.), *The Dead and Their Possessions: Repatriation in Principle, Policy and Practice*, London: Routledge, 119-217.

Simpson, R. (2014) 'The history of Club Row live animal market', *East End Review*, 9 June 2014 (http://www.eastendreview.co.uk/2014/06/09/club-row-market/ accessed on 7 June 2016).

Simson, C. (1966) *A Bird Overhead*, London: H. F. & G. Witherby Ltd.

Simson, C. (1976) 'Ornithology' in Chalmers-Hunt, J.M. (Ed) (1976) *Natural History Auctions 1700-1972. A Register of Sales in the British Isles*, London: Sotheby Parke

Burnett, 23-31.

Sinclair, R. (2015) We Love Real Life Scotland, 2015, document accompanying Glasgow Museums Gallery of Modern Art blog post, 22nd October 2015 (https://galleryofmodernart.files.wordpress.com/2015/10/we-love-real-life-scotland_ross-sinclair.pdf accessed on 1 May 2016).

Singer, P. (2009 [1975]) *Animal Liberation: The Definitive Classic of the Animal Movement*, New York: Harper Perennial.

Skinner, K.L. ['K.L.S.'] (1920a) 'Series collecting – Yellow Hammers in particular', *The Oologists' Exchange & Mart* 2(7), 54-56.

Skinner, K.L. ('K.L.S.') (1935) 'The future of "The Oologists' Record"', *The Oologists' Record* 15(1), 12-13.

Sloterdijk, P. (2011) *Spheres. Volume I: Bubbles. Microspherology*, Los Angeles: Semiotext. (Transl. W. Hoban).

Smith, C. and Agar, J. (eds.) (1998) *Making Space for Science: Territorial Themes in the Making of Knowledge*, Basingstoke: Macmillan Press Ltd.

SSPWB (n.d.) *Nest Robbing*, Glasgow: Scottish Society for the Protection of Wild Birds.

Stafford, B.M. (1994) *Artful Science: Enlightenment, Entertainment and the Eclipse of Visual Education*, Cambridge, MA and London: The MIT Press.

Stanford, J.K. (1953) *Bledgrave Hall*, London: The Country Book Club.

Star, S.L. and Griesemer (1989) 'Institutional ecology, 'translations' and boundary objects: amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39, *Social Studies of Science* 19(3), 387-420.

Stebbins, R.A. (1992) *Amateurs, Professionals, and Serious Leisure*, Montreal & Kingston, London and Buffalo: McGill-Queen's University Press.

Steedman, C. (2001) *Dust*, Manchester: Manchester University Press.

Steward, E.S. (1988) *The Journal of Edward Simmon Steward F.R.C.S. M.B.O.U. 1873-1954*, Horsforth, Leeds: J. Whitaker.

Stewart, A. (2008 [2007]) *Wildlife Detective: A Life Spent Fighting Wildlife Crime*, Glendaruel: Argyll Publishing.

Stewart, S (1984) *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection, Baltimore* and London: John Hopkins University Press.

Stuart Baker, E.C. (1923a) 'The Criterion for the Trinomial', *The Oologists' Record* 3(2), 30-36.

Stuart Baker, E.C. (1923b) 'Egg-collecting', *The Oologists' Record* 3(4), 82-85.

Stuart Baker, E.C. (1925) 'On collecting eggs', *The Oologists' Record* 5(4), 84-89.

Stuart Baker, E.C. and Elwes, H.J. (1922) 'Wild bird protection', *The Times*, 10th April 1922, 10.

Suarez A.V. and Tsutui, N.D. (2004) 'The value of museum collections for research and society', *BioScience* 54(1), 66-74.

Sutcliffe, R. (1993) 'Bird egg collections: report of a one-day seminar at Tring Museum', 15 February 1990, *Journal of Biological Curation* 1(3/4), 19-28.

Suthard, J.G. (1948) 'Treatment of Moulds and Bacteria on Egg Collections', *Oologists' Record* 22(3), 44-47.

Swinney, G.N. (2011) 'An Afterword on Afterlife' in Alberti, S.J.M.M. (Ed.) (2011) *The Afterlives of Animals: A Museum Menagerie*, Charlottesville, VA and London; University of Virginia Press, 219-233.

Taylor, N. and Twine, R. (eds.) *The Rise of Critical Animal Studies: From the Margins to the Centre*, London: Routledge.

The Ornithologist (1896-97) *The Ornithologist. A Magazine of Ornithology and Oology. First series. March, 1896, to February, 1897*, London: John Bale & Sons (obtained from http://www.biodiversitylibrary.org/item/121947#page/9/mode/1up accessed on 2 September 2016).

The Times (1975) 'Capt C.R.S. Pitman', *The Times* 22nd September 1975, 14.

Thomas, N. (2004) 'Exploring the boundaries of biography: the family and friendship networks of Lady Curzon, Vicereine of India 1898-1905', *Journal of Historical Geography* 30(3), 496-519.

Thompson, M (1979) *Rubbish Theory*, Oxford: Oxford University Press.

Thomson, A.L. (1942 [1910]) *Britain's Birds and their Nests*, London and Edinburgh: W. & R. Chambers, Ltd.

Till, K. (2001) 'Reimagining national identity: "Chapters of Life" at the German Historical Museum in Berlin' in Adams, P.C., Hoelscher, S and Till, K.E. (eds.) *Textures of Place; Exploring Humanist Geographies*, Minneaopolis, MN and London; University of Minnesota Press, 273-299.

Tilley, C., Keane, W., Kuchler, S., Rowlands, M., Spyer (2006a) *Handbook of Material Culture*, London: SAGE Publications Ltd.

Tilley, C., Keane, W., Kuchler, S., Rowlands, M., Spyer (2006b) 'Introduction' in C. Tilley *et al* (eds.) *Handbook of Material Culture*, London: SAGE Publications Ltd., 1-6.

Tomkinson, P.M.L. & Tomkinson, J.W. (1966) *Eggs of the Great Auk*, London: British Museum (Natural History).

Toogood, M. (2011) 'Modern observations: new ornithology and the science of ourselves, 1920-1940', *Journal of Historical Geography* 37(3), 348-357.

Took, G.E. (1966) ‘Obituaries. Guy Mannering 1882-1966’, *The Oologists’ Record* 40(4), 80.

Took, G.E. (1967) ‘Obituary. Stanborough Anthony Reginald Smith 1892-1966’, *The Oologists’ Record* 41(1), 22.

Tuan, Y.F. (1984) *Dominance and Affection: The Making of Pets*, New Haven, CT and London: Yale University Press.

Unwin, B, (2004) ‘Obituary: Janet Kear’, *The Guardian*, 6 December 2004 (http://www.theguardian.com/environment/2004/dec/06/obituaries.guardianobituaries accessed on 12 August 2015.

UK Parliament (1981) *Wildlife and Countryside Act 1981*, London: Her Majesty’s Stationery Office.

Venturi, R. (1977), *Complexity and Contradiction in Architecture* (2nd edition), New York: The Museum of Modern Art.

Vergo, P. (1989) ‘The Reticent Object’ in Vergo, P. (ed.) *The New Museology*, London: Reaktion, 41-59.

Vergo, P. (1994) ‘The rhetoric of display’ in Miles, R. and Zavala, L. (eds.) *Towards the Museum of the Future: New European Perspectives*, London and New York: Routledge.

Vesey-Fitzgerald (n.d.) *A Second Book of British Birds and their Nests. A Ladybird Nature Book*, Loughborough: Wills & Hepworth Ltd.

Wagstaffe, R. and Fidler, J. (1968) *The Preservation of Natural History Specimens Volume II*, London: H.F. & G. Witherby Ltd.

Walker, P. (2016) ‘Gang’s £57m haul put the Hatton Garden robbers in the shade… their expertise less so’, *The Guardian*, 29 February 2016 (https://www.theguardian.com/uk-news/2016/feb/29/chinese-artefacts-fourteen-men-convicted-british-museums-rhino-horn

accessed on 2 August 2016)

Wallace, I. (2004) *Beguiled by Birds*, London: Christopher Helm.

Walley, G. (1997) 'The social history value of natural history collections' in Nudds, J.R. and Pettitt, C.W. (eds.) *The Value and Valuation of Natural Science Collections. Proceedings of the International Conference, Manchester, 1995*, Bath: The Geological Society.

Walpole-Bond, J.A. (1904) *Bird Life in Wild Wales*, London: T. Fisher Unwin.

Walters, M. (1994a) *Birds' Eggs (Eyewitness Handbooks)*, London: Dorling Kindersley.

Walters, M. (1994b) 'Uses of egg collections: display, research, identification, the historical aspect', *Journal of Biological Curation* 1(5), 29-35.

Walters, M. (2005) 'My life with eggs', *Zoologische Mededlingen Leiden* 79(3), 5-18.

Warf, B. and Arias, S. (eds.) (2009) *The Spatial Turn: Interdisciplinary Perspectives*, London and New York: Routledge.

Watkins, H. (2008) *Fridge Space: Journeys of the Domestic Refrigerator*, University of British Columbia PhD thesis.

Watkins and Doncaster (n.d.) *Hints on the Preparation of Eggs* [instructions in box of egg blowing tools], London: Watkins and Doncaster.

Watson, A. (2011) *It's a Fine Day for the Hill: Hills, folk and wildlife, 1935-1962*, Rothershorpe, Northants: Paragon Publishing.

Watson, C. (2009) *Colin Watson – His Story*, Horsforth, Leeds: James Whitaker.

Whistler, H. (1932) 'Kite's Eggs', *The Ibis* 74(1), 214.

Whitaker, A. (1952-53) 'Advice to a collector', *Bird Land* 7, 705.

Whitaker, K. (1996) ‘The culture of curiosity’ in Jardine, N., Secord, J.A. and Spary, E.C. (eds.) *Cultures of Natural History*, Cambridge, Cambridge University Press, 75-90.

Winker, K. (2004) ‘Natural history museums in a postbiodiversity era’, *BioScience* 54(5), 455-459.

Winker, K. (2005) ‘Bird collections: development and use of a scientific resource’, *The Auk* 122(3), 966-971.

Withers, C.W.J. (2001) *Geography, Science and National Identity: Scotland Since 1520*, Cambridge: Cambridge University Press.

Withers, C.W.J. (2002) ‘Constructing the geographical archive’, *Area* 34(3), 303-311.

Withers, C.W.J. (2004) ‘Memory and the history of geographical knowledge: the commemoration of Mungo Park, African explorer’, *Journal of Historical Geography* 30(2), 316-339.

Withers, C.W.J. and Livingstone, D.N. (2011) ‘Thinking geographically about nineteenth-century science’ in Livingstone, D.N. and Withers, C.W.J. (eds.), *Geographies of Nineteenth-Century Science*, Chicago and London: The University of Chicago Press.

Wolch J. and Emel, J. (1995) ‘Guest editorial’, *Environment and Planning D: Society and Space* 13(6), 632-636).

Wolch et al (2004) ‘Reanimating cultural geography’ in Anderson, K., Domosh, M., Pile, S. and Thrift, N. (2003) *Handbook of Cultural Geography*, London: SAGE Publications Ltd, 184-206.

Wolfe, L.R. (1959) ‘A rattling good adventure’, *The Oologists’ Record* 33(4), 58.

Wonders, K. (1989) ‘Exhibiting Fauna – From Spectacle to Habitat Group’, *Curator*, 32(2), 131-156.

Woods, M. (2000) ‘Fantastic Mr Fox? Representing animals in the hunting debate’ in Philo, C. and Wilbert, C. (eds.) *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*, London and New York: Routledge, 182-202.

Workman, E.H. (1925) ‘A useful egg blower’, *The Oologists’ Record* 5(2), 32-33.

Yanni, C. (1999) *Nature’s Museums: Victorian Science and the Architecture of Display*, London: The Athlone Press.